Logistics Management Institute

Inter-Service Support Agreements at Fort Detrick

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Executive Summary

The U.S. Army Garrison at Fort Detrick, MD, provides base support services to 36 tenant organizations. The garrison seeks to establish a fair and accurate basis to charge tenants for the services it provides. The garrison documents its services through inter-service support agreements. Before establishing its agreements for the upcoming fiscal year, the garrison is interested in reexamining the basis for its charges. It also is interested in examining the relationship between service delivery and costs, so that it can optimize resource allocation decisions in the future.

The garrison asked LMI to study six service areas: Refuse Removal, Continuing Education, Custodial Services, Facilities Engineering, Communications, and Information Technology. For each service area, the garrison asked LMI to identify the services being provided to tenants, quantify their costs, determine the level of service delivery, and recommend a commensurate rate structure.

LMI identified approximately 25 distinct services and developed cost allocation models that estimate their individual annual costs. Mainframe support is one of most cost-intensive areas for the garrison. Although the garrison is correctly allocating costs to tenants on the basis of their time on the mainframe, the true cost of providing these services is approximately $70 per hour more than the garrison currently charges. Telecommunications infrastructure—to provide voice and data transmission—is another high-cost area. LMI recommends that the garrison allocate these costs on a per capita basis; we estimate that these costs are approximately $302 per capita. All tenants use the garrison's municipal waste and recycling services. LMI recommends allocating costs for municipal waste costs by the annual number of required dumpster pickups. LMI's rate for recycling services, allocated on a per capita basis, reflects cost-savings from sales revenue.

By understanding the true level of resources required to provide each service, the garrison can make informed decisions on service delivery and resource allocation. The garrison can use the rates that LMI has developed as a basis for its reimbursable activity. LMI also recommends that the garrison use comparison rate information to identify opportunities for operational improvements within service areas.

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Chapter 1
Introduction

BACKGROUND

The U.S. Army Garrison (USAG) at Fort Detrick, MD, provides base support services to 36 tenant organizations. These services include real property maintenance and telecommunications support. The tenants are Army organizations and other federal agencies. The garrison documents its agreements for services with tenants through inter-service support agreements (ISSAs).

The garrison is interested in examining its ISSA structure for six service areas: Refuse Removal, Continuing Education, Custodial Services, Facilities Engineering, Communications, and Information Technology. In preparation for this year's update of its ISSAs, the garrison asked LMI to identify products, levels of service and commensurate rates for these service areas. In particular, the garrison is seeking to establish a fair and accurate basis for charging tenants for the services it provides. In the face of a changing funding environment, the garrison also is seeking to better understand the relationship between costs and service delivery so that it can make informed decisions in the future.

STUDY APPROACH

From the outset, we adopted a product-driven perspective. That is, we sought to understand each operation in terms of the products or services that tenants (customers) receive rather than the processes in which staff member engage. After we identified products, we aligned them to the staff activities that supported their delivery and allocated costs accordingly. Given the reliance on government funding and the non-market environment at Fort Detrick, we equated the rate or "price" for a product with its cost. Thus, for each service area, we sought to

◆ identify customer products,

◆ identify levels of service,

◆ identify total annual product cost, and

◆ allocate costs to customers.

The results from each step became the basis for our findings on tenant rates and commensurate levels of service. The remainder of this chapter provides additional explanation of the study approach.

Identifying Customer Products

To identify products and services being provided, we met with managers and key staff members from each service area. We developed sets of products and services by using the following criteria:

◆ *Representative of activities and annual expenses of service area:* For each service, the final set of products had to account for all staff activity and total obligations. This criterion established accountability between an area's costs and its ability to successfully deliver products.

◆ *Shows a visible benefit for the customer:* Most businesses engage in a variety of activities to deliver products and services to their customers. Although all of these activities contribute to the satisfactory delivery of products, many may be invisible to customers. With regard to Continuing Education, for example, considerable staff time is expended to coordinate and arrange for training classes. The end result for the customer, however, is the class offering itself. In our product-driven approach, customers must be able to perceive a tangible benefit from the staff activity.

◆ *Distinct, based on benefit and resources:* Each distinct benefit that tenants receive from a service area is identified as a separate product. The distinction may be based on the different customer segments that benefit. For example, the Continuing Education department offers several types of training classes. Interviews revealed that a subset of those classes benefit military personnel (active duty or reserve) only, whereas others served a broader set of tenants. In this case, we identified "military-dedicated training" as a distinct product group so that a broader group of tenants would not be charged for services from which they do not benefit. Finally, products also must be distinct in terms of resources required to provide them so that costs can be isolated for each product. For example, Refuse Removal is responsible for collecting several types of materials for recycling. Although Refuse Removal staff members can quantify the amount of time they spend collecting materials for recycling, they cannot quantify the amount of time they spend picking up office paper specifically. Therefore, "pickup of office-paper" would not be defined as a product, whereas "pickup of recycling" is.

Identifying Levels of Service

In the private sector, competitive pressures strongly influence levels of service, which are commensurate with rates. At Fort Detrick, cost drivers for a particular product can provide some information to determine levels of service. Given the non-market environment, however, we also made normative judgments.

As a starting point, we examined the current level of service for each product category. We also interviewed staff members to assess the level of capacity at

which current operations were carried out. That is, we tried to determine the increased level of service delivery that the existing level of resources could support. We defined the *standard* level of service for a product as the level of service that an area could provide under normal capacity. Services that required excess capacity, including overtime costs or temporary or permanent hires, were designated as *additional* levels of service and priced at actual cost.

Identifying Total Annual Product Cost

We believe that the garrison can make informed decisions about service delivery and optimal resource allocation by understanding the total level of annual resources that are required to provide each service. To reflect the true level of resources, we included indirect expenses.

To identify total annual costs for each product, we used FY99 actual obligations from each service area as a starting point. In general, once we identified products, we worked in conjunction with operational managers to allocated three types of resources to each product:

- ◆ *Direct labor:* Although activity-based costing (ABC) is conducted at the installation, it has not been fully implemented at the staff level in each service area. Therefore, we assigned a percentage of each employee's time devoted to supporting a product. We then used the employee's fully burdened FY99 wage to determine the employee's contribution to product costs. We included training and award dollars, where possible. We included direct supervision costs as direct labor. Total direct labor costs should equal FY99 total salary information for each service area.

- ◆ *Equipment and supplies*: Again, we worked in conjunction with operational managers to generate estimates for the proper allocation of equipment and supply costs among a service area's products. When managers were able to identify resources that were specific to a particular product, costs for those equipment and supplies were assigned uniquely to that product. When resources were not specific to a product but supported all products to an equal extent, these costs were distributed equally among the product categories.

- ◆ *Indirect costs:* We defined indirect costs as labor, equipment, and supplies associated with management and administrative oversight of the service area. Typically, this figure included all layers of management, up to the director's level, for each service area. It also included staff members who are dedicated to budget, purchasing, and administrative functions. We assigned indirect labor costs on the basis of the portion of direct labor costs associated with a particular product. For example, if training classes represent 20 percent of all direct labor costs in Continuing Education, we assigned 20 percent of that service area's indirect cost to that product.

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We used the foregoing information to develop a cost allocation model for each service area. Details on the cost allocation models for each service area are provided in Appendixes A through E.

Although Fort Detrick was able to provide FY98 costs from its ABC systems, we could not use these data. In some cases, significant changes in staff positions had occurred, so total costs were not representative of current operations. In other cases, costs for contract labor or other resources were not included; as a result, the total cost picture was skewed. Our approach improved accuracy because it developed total costs from the bottom-up. In addition, the steps outlined above are consistent with ABC methodology.

Because we used information on actual obligations from FY99, expenses for rent and utilities were not included in total product costs. Data for these expenses are not available at the service area level. These expenses are borne by the installation as a portion of total base operations.

Allocating Costs

Finally, we allocated costs to customers. To allocate costs fairly, we first had to determine what portion of a product's total costs justifiably could be passed on to tenants. Then we developed a basis for distributing those costs among tenants.

DETERMINING COSTS

To the extent possible, only incremental costs—those incurred because of tenant presence—were passed on to customers. For example, the garrison's current level of operations in its incineration plants represents a fixed cost that is largely unaffected by the presence of other tenants on post (at least for now). Therefore, these costs are included in total product costs passed on to the customer. A primary mission of the garrison is to provide support services to its tenant organizations. Therefore, there were very few services for which large fixed costs were excluded. In most cases, isolating incremental costs was not feasible. Fixed labor pools are used to provide most services on the installation. To understand the incremental level of resources that support tenant activity, we would need to conduct considerable analysis regarding staff productivity. Fort Detrick did not have the funds available to support this level of in-depth analysis for each service area at this time. Instead, we included the full cost of direct labor for these service areas. Then we allocated expenses on the basis of how much of each service a tenant used. Under this approach, the garrison shoulders costs that are proportionate to its use of services.

In some cases, we defined products that solely benefit the garrison. For example, the Continuing Education area devotes staff time to develop individual development plans and core training classes for all garrison personnel. We identified the expenses associated with these products as nonreimbursable. For each service area, we identified products that are not reimbursable and those that are poten-

tially reimbursable. The latter category refers to activities for which the installation can charge (should it wish to do so).

Once we identified the total cost for each product, we used this information in the numerator to calculate the product rate.

DETERMINING ALLOCATION

The determination of who benefits from services and the extent of that benefit were fundamental to understanding how to distribute costs.

- ◆ *Usage:* Identification of the customers who use a product is a primary factor in determining benefit. Ideally, as customers demand more units of a product or service, their total expenses for purchasing the product should increase. In this way, costs are allocated at a level that is commensurate with use. This approach is the most efficient way to distribute the cost of resources among customers; it also is the method that typically is used in the private sector. Implementing this approach requires that accurate data on usage (that is, who uses services and to what extent) are available. Where those data were not available, we identified another indicator to act as a proxy for usage.

- ◆ *Cost drivers:* The correct basis for allocating costs will not only distribute resources on the basis of use; it will also capture critical cost drivers. As a business delivers increased quantities of a product, certain portions of its costs should increase. Here we refer to the aspects of customer demand that would require a business to add more resources as cost drivers. For example, for trash removal services, the number of pickup points and the quantity (or weight) of trash are typical cost drivers: As more trash is picked up, pickup and disposal costs increase. (To a lesser extent, the distance between pickup points also is a cost driver.) In building construction, the amount of square footage required is the main cost driver.

- ◆ *Equity:* The foregoing considerations address the questions of who benefits, and by how much. When a rate accurately quantifies the level of resources that correspond to use, it truly reflects demand and is akin to a private-sector price. For many public-sector goods, however, distributing costs on the basis of use is neither feasible nor equitable. For example, a city's residents cannot individually purchase fire and police services. Charging for these services on a per-use basis is not equitable because it would make public safety available for some residents but not others. Instead, everyone is required to pay for these services through local taxes.

  The issue of equity surfaced in a few ways at Fort Detrick. First, avoiding negative customer behavior was an important consideration in determining a proper basis for cost allocation. For example, charging for Help Desk services on a per-call basis would have the immediate and negative effect

of decreasing customer calls for assistance. In this case, charging a rate to each user that covers an annual number of calls that the Help Desk can support is more equitable. Recycling services are another example: Charging for recycling services by weight penalizes customers that recycle the most—precisely the opposite of what the installation wants to foster.

Second, the issue of equity at Fort Detrick is tied to the budgeting process. The Department of the Army allocates base support budgets to its installations via its major commands. Those budget allocations are based, in part, on the number of DoD personnel stationed at its installations—in tenant organizations as well in the host command's organizations. Thus, we were careful not to reallocate costs to DoD tenants because, essentially, their costs were paid for at the time of funding.

For each product, we determined the appropriate basis for allocating costs among customers. We then used this basis as a denominator to determine the rate for that service for tenants. With regard to Refuse Removal, for example, we used the number of pickups as a basis to calculate a cost per pickup to apply to each tenant. Similarly, using square footage as a basis for engineering services, we were able to compute a rate per square foot to apply to tenants.

PRODUCT RATE

We relied largely on historical information on costs and the use of services to determine product rates. In some cases, data on operational capacity and incremental costs were sufficiently available. In these cases, we were able to determine a unit (or marginal) cost for products. In other cases, we could not quantify operational capacity or incremental costs. In these cases, we calculated an average rate on the basis of a product's full cost.

REPORT ORGANIZATION

Chapter 2 summarizes our results for all six service areas. For each product tenants receive, we identify standard and additional levels of service, the basis for allocating costs to tenants, and the rate that tenants should be charged. Chapters 3 through 7 explain our findings for each service area. (For the purposes of this report, we treat Communications and Information Technology together.) Finally, the appendixes contain detailed usage data and LMI's cost allocation by service area.

Chapter 2
Summary of Results and Recommendations

RESULTS

For each service area, we identified a set of products and developed a cost allocation model. We then determined total costs for each product and identified levels of service and bases for allocating costs among all users. The basis for allocating costs was a main factor in determining product rates. Each element is described below:

◆ *Standard level of service:* In all cases, we were able to identify a standard level of service. Typically, these definitions are based on service levels that each operation currently supports, as well as normative judgments about capacity.

◆ *Additional levels of service:* In a few cases, we could identify additional levels of service. For example, with regard to custodial services, tenants can specify their desired level of service for office cleaning with the installation contractor. When tenants request project engineering or applications development services, they specify their desired level of service at the time of the request. In other cases, additional services are based on the actual cost a department incurs to supply them. In most cases, however, we could not identify additional levels of services because they didn't exist—for example, in the Continuing Education area, when people take a test or participate in a class. In other cases, the normal scope of operations supports current demands. Under this methodology, additional services typically could not be supported within the current level of resources. As these additional services are identified in the future, they should be charged to tenants on the basis of actual incremental expenses incurred.

◆ *Basis for cost allocation:* For several products, the service area tracked data on customer demand so we could allocate costs on the basis of actual usage. For example, Refuse Removal keeps excellent records on the number and frequency of pickups for municipal and medical waste. Similarly, Continuing Education tracks the number of participants in each class. We were able to use exact records on square footage to allocate costs related to facilities, such as custodial services.

In other cases, data on true usage were not available. For example, although the Communications area monitors the number of account holders for its UNIX and Windows NT platforms, actual users and the extent of their use are not monitored. Similarly, Continuing Education records the

number of people who come in to use the Learning Resource Center—but not the length of time they use the terminals. In some cases, we were able to quantify operational capacity and use it to allocate costs; for example, we developed an estimate of the number of hours that terminals are used in the Learning Resource Center. When we could not quantify capacity, we used proxy data as an estimate for use. Most notably, we relied on the number of account holders to allocate costs for services related to the UNIX and NT platforms. (Specific recommendations on improving data tracking for each service area appear in the relevant chapters.)

We found three products for which equity was a consideration in establishing rates: recycling, help desk services, and general engineering support. We did not rely on actual usage data for recycling services because relying on the weight or number of pickups would discourage organizations from recycling. Instead, we used a per capita allocation. Similarly, the garrison does not want to discourage people from calling its help desk. Although information is tracked for each call, we did not develop a rate per call. Instead, we used data on call volume to estimate the allocation of costs among tenants. The final rate, however, is based on fixed annual expenses that entitle the customer to unlimited calling. General engineering support is the third service area for which equity is a consideration. Although we calculated a product rate (based on square footage), we recommend that the garrison establish a price cap for this particular service because staff charges to indirect time represent the bulk of expenses.

◆ *Rates:* Rates for telecommunication services, which require considerable equipment and maintenance, were relatively high. For example, we determined that the true cost of providing mainframe services is approximately $70 an hour more than what tenants are currently charged. Telecommunications infrastructure—to provide voice and data transmission—is another high-cost area. LMI recommends that the garrison allocate these costs on a per capita basis; we estimate that these costs are approximately $302 per capita.

It is worth noting rates for refuse removal services because they affect all tenants. Previously, tenants were charged one bulk rate, per capita, for all services. We separately identified costs for municipal and medical waste and recycling. This means that tenants that do not generate medical waste are no longer charged for these services. We recommend that costs for municipal and medical waste be allocated on the number of pickups that each tenant requires, not by weight. Also, we chose not to include incineration costs for municipal waste in the final rate, passing this on as a "free" service for tenants. Using this approach, we calculated a rate of $10 per dumpster pickup for municipal waste and $21 per medical cart pickup for medical waste. Rates for recycling services, $43 per capita, include savings from sales revenue of recycled materials.

In at least one case—for the education center's open computer room—we developed a range of options, at Fort Detrick's request.

◆ *Type of cost*: We also list the type of cost used to determine the product rate. Rates were determined using either average or incremental costs as a basis.

Table 2-1 lists products, levels of service, bases for reimbursement, and commensurate rates for all six service areas.

Table 2-1. Summary of Rates and Level of Service, by Product

Service area/product	Standard level of service	Additional service	Basis for cost allocation	Rate	Type of cost
Refuse Removal					
Municipal waste	Pickup frequency fixed on biweekly basis and determined by Refuse Removal based on need. Disposal, via incineration and landfill, included at no cost.	None currently identified	Per dumpster pickup	$10	Average
Medical waste	Pickup and disposal of medical waste on a daily basis, dictated by level of waste. Ensures compliance with environmental regulations.	None currently identified	Per medical cart pickup	$21	Average
Recycling	Pickup and disposal. Includes a variety of paper, metal, glass, and plastic. Services include sorting, packaging, and resale of recycled materials. Frequency fixed on weekly basis.	None currently identified	Per capita, net of sales revenue	$43	Average
Continuing Education					
Training (not dedicated to military)	Employee participation in non-military training classes offered at Detrick Center for Training and Education Excellence (DCTEE), as space allows. Includes class materials, dedicated technical support, and computer use during class. Also allows tenants to coordinate training needs for employees through DCTEE.	None currently identified	Per participant per class	$69.10	Average
	Qualified teaching support for non-military training classes.	None currently identified	Per participant per class	Actual cost	Incremental

Table 2-1. Summary of Rates and Level of Service, by Product (Continued)

Service area/product	Standard level of service	Additional service	Basis for cost allocation	Rate	Type of cost
Equivalency testing	Allows employees to take equivalency tests to obtain college credit. Includes accredited examination, proctoring, tabulating, and reporting.	None currently identified	Per test taken	$36.50 Cost of test	Average Incremental
Learning Resource Center (LRC)	Employee or contractor access to LRC for all computer needs during hours of operation. Includes applications, Internet access, printing, video streaming. Use based on availability.	None currently identified	Option 1: Per hour (increment of)	$5.00	Average
			Option 2: Per user	$26.50	Average
			Option 3: Per capita	$21.80	Average
Video teleconference sessions (VTC)	Use of VTC facilities to conduct instructional (or other information dissemination) session, as requested by tenant. Includes technical support to establish link and troubleshoot.	None currently identified	Per length of session	Actual cost— telecom only	Incremental
Custodial Services					
Custodial services	Removal of trash; mopping and dusting of individual offices, bathrooms, common areas. Cleaning frequency specified at time of request. Includes quality assurance and point of contact for troubleshooting.	All services identified by tenant in contract	Per square foot	$.0003 Actual cost of contract	Average Incremental
Facilities Engineering					
Project engineering support—tenant	Engineering, design, construction, and project management services to support building alterations. Level of service based on tenant requirements at time of request.	By project	Actual cost	Actual cost	Incremental
General engineering support	Supports operation and maintenance, master planning, and other general services vital to overall upkeep of installation.	None currently identified	Per square foot (with price cap)	$0.15	Average

Table 2-1. Summary of Rates and Level of Service, by Product (Continued)

Service area/product	Standard level of service	Additional service	Basis for cost allocation	Rate	Type of cost
Communications					
Telecommunications—telephone	Trunk line support for voice transmission. Includes quality assurance and troubleshooting services.	None currently identified	Per capita	$119.26	Average
Telecommunications—data	Reliability, required network access, speed for data transmissions. Includes maintenance and equipment purchases for optimal configuration.	None currently identified	Per capita	$183.50	Average
Computer services—enterprise server	Data processing and printing capability for all applications residing on enterprise server. Includes daily maintenance, troubleshooting, and monitoring.	None currently identified	Per CPU second	$0.09	Average
Computer services—UNIX	Data processing and printing capability for all applications residing on client server, UNIX platform. Includes daily maintenance, troubleshooting, and monitoring.	None currently identified	Per user	$32.44	Average
Computer services—NT	Data processing and printing capability for all applications residing on client server, NT platform. Includes daily maintenance, troubleshooting and monitoring.	None currently identified	Per user	$361.36	Average
Interactive services	Ensures adequate capacity and access for Internet services. Includes end-user support and maintenance for Internet, e-mail, and Defense Messaging services.	None currently identified	Per user	$263.19	Average
Video teleconference sessions (VTC)	Provides scheduling, facilitating, and troubleshooting support for VTC services. Equipment not provided.	None currently identified	Per hour	$30.24	Average
Information Technology—Client Services					
Help Desk (Level 1 support)	Unlimited calls for assistance by any end user	None currently identified	Per tenant organization (varies)	Fixed annual fee	Average

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Service area/product	Standard level of service	Additional service	Basis for cost allocation	Rate	Type of cost
Dedicated support (Levels 2 and 3)	Customer response for moves, upgrades, other hardware and software installation. Also includes troubleshooting above and beyond Level 1.	None currently identified	Per tenant organization (varies)	Actual annual cost	Incremental
Information Technology—Applications					
General system support	Technical support, including troubleshooting, primarily for Automated Integrated Requirements System (AIRS) and applications. Applies to DoD tenants only for financial, purchasing, and logistics support.	None currently identified	Per capita (DoD only)	$83.10	Average
Application development	Software development for applications. Level of service specified at time of request.	By project	Actual cost	Actual cost	Incremental
Dedicated application support	Technical support for system or application dedicated to tenant. Includes customer service support.	By project	Actual cost	Actual cost	Incremental

RECOMMENDATIONS

We recommend that USAG take the following actions:

◆ *Identify operational inefficiencies:* Product rates in the private sector reflect some level of efficiency resulting from competitive pressures in the marketplace. At Fort Detrick, operational managers should compare costs with the private sector to identify operational inefficiencies. When rates for a particular service are high, the garrison can examine its cost structure (using LMI's cost allocation model) to identify areas for operational improvement. For example, if indirect costs represent a high portion of total product costs, the garrison might consider realigning the organization of a service area to reduce layers of oversight. Similarly, information about the amount of direct labor, equipment, and supplies that are required to provide each service can offer valuable insight on optimum resource allocation. Improvements in operational efficiencies will lead to lower rates.

◆ *Make end-of-year adjustments:* Rates for most products are based on the average cost of delivering that product. Average costs were determined using historical data on usage. Therefore, the garrison may need to make end-of-year adjustments for services that are reimbursed on the basis of average costs because of changes in demand.

For example, the number of municipal trash pickups could increase without an increase in costs (because of excess capacity in the current operation or because of greater efficiencies in the pickup schedule). If it did, the product rate (based on actual usage) would decrease. In this case, end-of-year adjustments should be based on the new product rate. Otherwise, the garrison would recoup more than it spent. In either case, however, rates are based on volume; customers that require additional pickup service are charged accordingly.

As the foregoing shows, using an average cost basis implies that the product rate typically can support a range of requests for service. Most service areas do not operate at full capacity at all times of the year. Therefore, the current level of resources used to deliver services likely could accommodate some, without requiring overtime or temporary help. Because of these dynamics, end-of-year adjustments that are based on actual costs and usage will distribute costs in a more fair and accurate manner. The garrison's accounting system is already equipped to handle such adjustments.

♦ *Update cost allocation models:* Because the underlying cost methodology of the study involved activity-based costing, cost allocation models must be updated any time there is a significant reorganization. Product costs depend on the allocation of staff responsibilities and will change as a result of process or organizational changes.

♦ *Improve data tracking:* Although several areas kept excellent records, we identified some opportunities for better data tracking on usage. We note these areas in the individual summaries for each service area.

In terms of cost tracking, although Fort Detrick has made considerable progress in its use of activity-based costing, it has not fully implemented that methodology at the service area level. Not all staff members are required to track their time. Moreover, contract costs are not always integrated. We recommend that employees record their time according to major activities. Activity categories are particularly meaningful if they can correspond to the products with which customers identify.

Chapter 3
Refuse Removal

BACKGROUND

Refuse Removal is responsible for removing all waste that can be disposed of via landfill, incineration, or sale. (It is not responsible for hazardous materials.) Refuse Removal is committed to an environmentally responsible operation and boasts a very low rate of landfill disposal. Typically, municipal and medical wastes are incinerated in on-site plants; the landfill also is located on the post. Refuse Removal is within the Directorate of Installation Services.

PRODUCTS AND COSTS

Tenants receive three products from this service area:

◆ *Municipal waste:* Includes pickup and disposal of municipal waste. Frequency for municipal waste pickup can vary from once every two weeks to every day.

◆ *Medical waste:* Includes pickup and disposal of medical waste. Medical waste typically is picked up on a daily level, as required.

◆ *Recycling:* Includes pickup and disposal of a wide variety of recycling materials, including paper, glass, and metal. Frequency of pickup varies from once a week to every day.

Table 3-1 summarizes FY99 costs for the entire service area. Costs are captured for six activities (pickup and disposal of each of the three aforementioned products). Table 3-1 shows that actual expenses in FY99 were approximately $794,000. Revenues from sales of recycling offset costs by nearly $60,000. Table 3-1 also indicates the portion of total costs that the installation can potentially consider as a basis for reimbursements from tenants. The installation can consider about $600,000 of its incurred expenses for reimbursable activity. Note that because recycling avoids incineration and landfill costs for the recyclable materials, it also generates savings to the installation each year.

Further details on the allocation of direct labor, equipment, supplies, and indirect costs appear in Appendix A.

Table 3-1. Refuse Removal—Cost Summary

Product	Annual cost
Nonreimbursable	
Municipal waste disposal	$196,536.93
Potentially reimbursable	
Municipal waste pickup	120,997.60
Medical waste pickup	90,428.46
Medical waste disposal	98,810.45
Recycling pickup	166,580.52
Recycling disposal	120,241.09
Total costs	$793,595.07
Revenues from recyclables[a]	58,146.36
Net costs	$735,448.71
Cost avoidance from recycling[a]	184,594.50
Total savings from recycling[a]	$242,740.86

[a] Estimated from CY99.

ALLOCATING COSTS

Determining Costs

Once we determined the total cost for each activity, we determined the portion of the cost, if any, that could be reimbursed by tenants. Table 3-2 shows total costs that are potentially reimbursable for each of the three product categories. Explanations of these costs are provided below.

Table 3-2. Refuse Removal—Product Costs, Bases for Allocation, and Rates

Product	Annual cost	Basis for allocation	Usage	Rate	Rounded
Municipal waste	$120,997.60	Per pickup	12,064	$9.97	$10
Medical waste	189,238.91	Per pickup	9,062	20.99	$21
Recycling	228,675.26	per capita	5,341	42.81	$43

MUNICIPAL WASTE

Under the proposed allocation scheme, tenants would not be charged for disposal of municipal waste even though the installation would continue to provide these services. Municipal waste at Fort Detrick is primarily disposed through incineration. The Refuse area alternates the use of two incinerators, on a weekly basis, to burn municipal waste. These incinerators are not operating at full

capacity. Managers confirm that a similar operation would be required for the installation even without the burden of tenant waste. Therefore, disposal costs for municipal wastes are not included.

Of the remaining costs for the pickup of municipal waste, labor costs represent the majority of expenses. The current operation utilizes 1.4 full-time-equivalent (FTE) drivers to pick up the current number of dumpsters for municipal waste at the required frequency (see Appendix A).

MEDICAL WASTE

Pickup and disposal costs for medical waste represent incremental costs and are included in expenses that can be passed on to customers. Four tenants generate all of the medical waste on the installation. A dedicated driver, incinerator operator, and incinerator are required to handle all aspects of medical waste removal.

Separating medical waste as its own product category also acknowledges operational factors that are unique to the handling of this product, including certification of personnel and stricter legal requirements regarding the frequency of disposal.

RECYCLING

Disposal of recycling materials is accomplished primarily through sales. Total costs for pickup and disposal of recycled materials, net of sales revenue, are passed on to customers.

Disposal costs include labor associated with sorting, packaging, and measuring recycling materials. Numerous types of paper, metal, and bulk materials are collected on the installation. Pickup costs include wages and benefits for drivers and laborers who collect recycling materials from offices, housing, and outdoor receptacles on post.

Determining Allocation

We then determined the rate to charge tenants for each product or service. Table 3-2 identifies the basis for reimbursement and the usage data we used to determine product rates. In general, the Refuse Removal area had excellent data on the waste that it collects and disposes.

MUNICIPAL WASTE

We used historical information on the total number of dumpster pickups as the basis for determining a rate for municipal waste services. The number of dumpster pickups serves as a good basis because it gauges customer need for the service and captures operational cost. Operationally, pickup costs are incurred

regardless of whether a dumpster is half-full or completely full.[1] Because the current pickup schedule is based on past experience with typical waste buildup at each site, the number of dumpster-pickups is consistent to some extent with need. In FY99, the total number of required dumpster-pickups was approximately 12,000. This number yielded an approximate cost of $10 per dumpster-pickup.

Although the current level of resources dedicated to municipal waste pickup seems to be near capacity, determining the actual number of pickups that an optimal routing schedule could support is difficult. To the extent that the current number and mix of tenants remains the same, the pickup schedule—and therefore pickup costs—at the installation may remain static for a long period of time. Changes at the tenant level (e.g., addition of tenants or increased waste activity by existing tenants) could require increases in the number of pickups. If these increases are significant enough that Refuse Removal incurs additional costs, these added costs would need to be passed on to tenants in the future. Examples of additional costs would include consistent overtime or new temporary or permanent hires to sustain pickup operations to collect municipal waste.

Alternatively, the use of computerized dumpsters and trucks may allow management to identify a more efficient pickup schedule. In this case, savings from increased productivity would be passed on to customers.

If actual costs per dumpster-pickup are significantly different at the end of the fiscal year, end-of-year account adjustments should be made for each tenant.

MEDICAL WASTE

Again, we used historical information on the number of pickups from each tenant as a basis for determining a rate. Total costs include 1 FTE driver (see Appendix A). That is, total costs support the number of medical cart pickups that one full-time driver can accommodate in a day. The level of productivity or operational capacity in the current scope of operations is uncertain. The current operation may be able to support additional pickups without increased costs. In allocating costs to customers, the rate structure should support a range for the number of pickups that can be supported for the same price. To establish a realistic range, we used historical information on the number of actual pickups required per month for the last fiscal year for each tenant. Monthly data showing the smallest and highest number of pickups were used to establish an annual range that the current rate structure could support.

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[1] The frequency of pickup for each dumpster is a judgment call by the supervisor of Refuse Removal. The pickup schedule is based on the history of typical waste buildup at each dumpster site. In FY00, the supervisor will be able to more accurately gauge the need for pickup because of computerized equipment purchased this year for dumpsters and trucks.

RECYCLING

We allocated costs for recycling services over the strength (or population) on the post. As with other Refuse Removal products, recycling costs are driven by the amount of waste generated. The number of pickups and weight are not useful bases for rates because, given the public benefits of recycling, those bases would tend to penalize tenants who recycle the most—which might lead, in turn, to less recycling. Because the majority of recycling material generated on the post is office paper, the number of personnel in each organization is an equitable estimator for the demand—that is, the amount of waste that must be collected. Under this reasoning, the Refuse area would require less labor for recycling if the number of personnel on post were lower.

At the end of FY99, Fort Detrick's total strength profile for the installation, excluding the population at Site R, was 5,341 (see Appendix B). Therefore, the estimated annual per capita rate for recycling services on post was approximately $43. As noted in the cost summary above, this figure includes savings from sales revenues of recycled materials.

Table 3-3 shows the implication of the rate structure for a selected group of tenants.

Table 3-3. Total Refuse Costs for Selected Tenants, Based on FY99 Usage

Tenant	Municipal waste ($10 per pickup)	Medical waste ($21 per pickup)	Recycling[a] ($43 per capita)	Total costs
National Cancer Institute (NCI)	$61,100	$170,121	$79,464	$310,685
U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)	$8,000	$18,249	$24,295	$50,544
1110th	$1,420	—	$12,599	$14,019
1108th	$390	—	$3,096	$3,486
Technology Applications Office (TAO)	$140	—	$1,333	$1,473

[a] Costs are based on strength profile of each tenant as of 9/31/99.

Note that the unit cost of recycling is higher than the unit cost of disposing the same materials as municipal waste. However, the recycling rate does not capture the savings the installation reaps by avoiding incineration and landfill costs for the same amount of waste. In 1999, this savings was estimated at approximately $185,000. These savings represent about 80 percent of Fort Detrick's costs for its recycling operation. Recycling generally is more labor intensive, and therefore more expensive, than traditional disposal methods. In other sectors, municipalities and corporations encourage recycling as a matter of civic or corporate responsibility.

Usage data on the number of municipal waste and medical waste pickups by tenant, as well as information on the per capita strength of each tenant, appear in Appendix B.

SUMMARY

We allocated expenses for municipal and medical waste services on the basis of the number of annual pickups. We distributed recycling costs net of sales revenue and allocated them on a per capita basis. We determined all of these rates by using average costs; these rates may require end-of-year adjustments depending on changes in actual usage.

Chapter 4
Continuing Education

BACKGROUND

The Detrick Center for Training and Education Excellence (DCTEE) provides a variety of professional development opportunities for personnel on the installation. Although some of these opportunities benefit military personnel only, a surprising amount of services are open to the entire post population, including contractors and employees of non-DoD tenants. The DCTEE facility contains computer-aided classrooms, a computer lab center, and the morale, welfare, and recreation (MWR) library

PRODUCTS AND COSTS

DCTEE delivers the following products and services to Fort Detrick tenants:

- *Garrison-dedicated activities:* Includes individual development plans, mentoring programs, and internally developed classes.[1] Only USAG employees are eligible.

- *Educational counseling and support:* Includes tuition assistance, educational counseling, enrollment assistance, Army Personnel Testing (APT), and Functional Academic Skills Training (FAST). Also includes partnership efforts that allow other institutions to offer classes on-site. Only military personnel are eligible.

- *Military-dedicated training:* Includes combat and leadership training specific to active duty or reserve personnel. Also includes coordination with USAG and other DoD tenants to ensure that DCTEE meets the training needs of military personnel.

- *Non-military training:* Includes training classes offered on-site to meet a broad array of professional development needs for military, civilian, and contract personnel associated with Fort Detrick. Computer use and related technical support required for these classes also are included.

- *Site R–dedicated activities:* Includes coordination of educational counseling, training, and support for Site R personnel. We designated Site R ac-

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[1] DCTEE develops training classes that target USAG employees only. Training on sexual harassment in the workplace is an example.

tivities as a separate product because the budget and staff that support these services are distinct and target personnel at this location only.

◆ *Equivalency testing:* Allows military, civilian, and contract personnel on post to take tests that qualify for academic credit. Includes tests by the Educational Testing Service (ETS).

◆ *Video teleconferencing (VTC):* Allows video teleconferencing sessions to be conducted on-site (at DCTEE's facility), by request.

◆ *Satellite hookups:* Communication sessions fed through satellite links.

◆ *Learning Resource Center:* Allows any personnel on post to use one of 14 computer terminals for printing, Internet use, or program applications.[2]

Table 4-1 summarizes FY99 costs for the entire service area. In FY99, actual obligations totaled slightly more than $950,000.[3] About 53 percent of these expenses support nonreimbursable activities. These activities include educational and training efforts that are specifically geared to garrison and military personnel (including Site R), for which DCTEE is routinely funded. The remaining expenses support potentially reimbursable activities—for example, the Learning Resource Center, equivalency tests, and professional development classes. Note that actual communication costs for VTC sessions are not included in total costs because these costs are borne at the installation level, not by DCTEE.

Further details regarding the allocation of direct labor, supplies, and indirect costs appear in Appendix B.

ALLOCATING COSTS

Determining Costs

We determined that continuing education services that primarily serve garrison and military personnel should not be passed on to tenants. Garrison-dedicated activities do not provide benefits to tenants. DCTEE's primary mission is to provide military-dedicated training, educational counseling, and support for military personnel; this mission is the main basis for DCTEE's funding. Satellite links are not designated as reimbursable because expenses for these hookups are largely related to maintenance and do not represent incremental costs. Indeed, there is little direct labor cost involved for this service.

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[2] The LRC is open 7:30 am–8:00 pm on Monday–Thursday; 7:30 am–5:00 pm on Friday; and 7:30 am–3:00 pm on Saturday. It is closed on Sunday.

[3] This figure does not include the following FY99 costs: $57,000 for furniture expenses; $3,000 for moving and storage; and $2,000 for carpet cleaning, trash cans, and light bulbs.

Table 4-1. Continuing Education—Cost Summary

Product	FY99 actual expenses
Nonreimbursable	
Garrison-dedicated support	$124,013.20
Educational counseling and support	183,860.06
Site R support	98,918.53
Military-dedicated training classes	96,388.75
Satellite sessions	252.75
Subtotal	503,433.30
Potentially reimbursable	
Non-military training classes	231,778.22
Equivalency testing	37,922.07
MWR library	66,457.24
Learning Resource Center	116,579.12
VTC sessions	NA[a]
Subtotal	452,736.65
Total	$956,169.95

[a] Not applicable because communication costs not paid directly by DCTEE.

For products that are potentially reimbursable, Table 4-2 shows total product costs, bases for reimbursement, and resulting customer rates.

Table 4-2. Continuing Education—Product Costs, Bases for Reimbursement, and Rates

Potentially reimbursable products	FY99 actual expenses	Basis for allocation	Total usage	Rate	Rounded
Non-military training	$231,778.22	Per participant per class	3,353	69.13	69.10
Equivalency testing	37,922.07	Per test taker	1,038	36.53	36.50
MWR library	66,457.24	Per capita (DoD population)	3,472	19.14	19.15
Learning Research Center	116,579.12	See Table 4-3			
VTC sessions	Not applicable	Actual communication costs	$.01 per minute per channel (off-peak); $.02 per minute per channel (peak); minimum two channels; long-distance charges apply.		

NON-MILITARY TRAINING CLASSES

DCTEE currently recoups costs associated with teaching contracts for each class offered in this product category. The total cost shown in Table 4-2 represents expenses incurred by DCTEE for organizing and coordinating training classes. It

also includes expenses for technical support required for classes, such as computer and software maintenance and technical assistance.

EQUIVALENCY TESTING

Test-takers typically pay for the cost of a test only if DCTEE must purchase it from an educational agency. DCTEE does not recoup costs that are associated with administering tests. The total cost shown in Table 4-2 supports labor for proctoring and scoring of tests. It also covers administrative expenses associated with procuring test materials.

MWR LIBRARY

The total cost includes only labor and material costs that are paid by the garrison. It does not include expenses for an assistant (who is paid for by the National Institutes of Health).

LEARNING RESOURCE CENTER

Users are allowed to stay at terminals as long as they like, and no one is charged for these services. Total costs include equipment costs for terminals, printers, and cables, as well as labor resources dedicated to maintaining the center. Labor costs associated with assisting users also are included.

VTC SESSIONS

VTC costs are not specified in Table 4-2. First, labor costs for VTC sessions are minimal, so we did not distinguish them.[4] Second, the majority of costs for VTC sessions are communication costs that are not directly paid by DCTEE. Instead, these costs are handled at the installation level. Although actual communication costs are not shown in Table 4-2, we propose that such costs (based on the length of the session) be passed on to the organization requesting the VTC session, at rates shown in Table 4-2.

Determining Allocation

NON-MILITARY TRAINING CLASSES

DCTEE must recoup direct expenses related to organizing these training classes from students who elect to participate. We used historical information on the number of participants in DCTEE's non-military training classes. In FY99, approximately 3,350 students participated in these classes. These students represented military, other DoD, and non-DoD personnel on the installation. On the basis of this participation rate, we estimate that the organizational cost to support

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[4] Labor costs associated with VTC sessions include 15 minutes of technical support for set-up and a portion of administrative time related to scheduling and other logistics at the time a session is requested. In the current allocation model, these costs are absorbed as indirect expenses.

non-military training classes is about $69.15 per participant per class. By allocating costs to class participants, costs are directed only to those who benefit from or use the product.

DCTEE should use this rate to charge tenants on the basis of the number of class participants from each organization. DCTEE data on overall enrollment show an upward trend in class participation over the past few years. If class participation is higher in FY00, the per-participant rate would decrease. In this event, an-end-of year adjustment should be made, on the basis of the number of students enrolled from each tenant organization.

DCTEE previously did not keep automated records on the tenant organization that each student was associated with. Therefore, we could not assess the total costs each tenant would have paid under this rate structure in FY99. DCTEE has begun to track such data this fiscal year, however,. Therefore, the garrison should be able to allocate product costs accurately in the future.

EQUIVALENCY TESTING

We used historical information on the number of persons taking tests from DCTEE in FY99. This number, however, reflects all test-takers—including those taking tests under the APT. The costs associated with this product cover equivalency testing only, the rate should be based on the number of people taking these tests only. This analysis implies that in the future, DCTEE may want to distinguish equivalency tests from APT tests in its data tracking. Using the total number of test-takers in FY99, we determined that the garrison can charge $36.50 for each test for proctoring and scoring services.

Equivalency tests appear to be administered at an individual's request. In the future, if decreasing the cost for this product area becomes necessary, DCTEE should consider re-engineering this process. In particular, it could consider setting particular times for equivalency exams. This strategy would better define labor resources that support this product, limit them to certain hours, and distribute them over a larger number of users.

Again, no data were available on which tenants the test-takers were associated with. The installation, together with DCTEE, must decide whether to hold the test-taker or the tenant organization responsible for reimbursement. In the latter case, DCTEE would need to add tenant information to its tracking of equivalency tests.

MWR LIBRARY

The Department of the Army provides funding to each Army base to provide library privileges to its personnel. Although retired personnel and dependents are eligible for these privileges, annual funding is based on the total DoD population on the base at the time budget decisions are made. We believe that the installation

should not charge for library privileges. DoD personnel are already entitled to access these services at no cost. For non DoD personnel, the incremental costs of borrowing a book or conducting research are quite small.

We calculated the installation's per capita cost of delivering MWR library services. Counting only DoD strength on the post, the per capita rate is $19.15.

LEARNING RESOURCE CENTER

DCTEE would like to recoup its expenses for the LRC services it provides. It does not wish to adopt a rate structure that deters users from utilizing these services, however. DCTEE will not be able to accomplish both of these objectives completely because they conflict. We developed three rate options for DCTEE review. Each option is based on a different allocation mechanism. Table 4-3 lists these options and the corresponding implications for customer rates.

Table 4-3. Rate Options for Learning Resource Center

Options for reimbursement	Basis	Use	Source	Rate	Rounded
Option 1	Per capita	5,341	FY99 strength minus Site R	$21.83	$21.80
Option 2	Per user	4,404	Actual FY99 usage	26.47	26.50
Option 3	Per hour	23,513	Estimate based on capacity (14 terminals); assumes half full at all hours of operation.	4.96	5.00

Option 1 allocates costs to tenants on the basis of their strength profile. The advantage for the garrison is that it can target reimbursements from tenants and recoup product expenses up front. This method, however, allocates costs to tenants on the basis of *likelihood* of use, not *actual* use. In this context, likelihood is approximated by the size of an organization. This option has the real effect of charging tenants inequitably: Organizations will pay fees for all users even though only a portion of their employees will access LRC services. This method can also have the unintended effect of increasing the number of interested users beyond the LRC's capacity because if tenants are required to pay for LRC services on a per capita basis, they will likely encourage all eligible personnel to use them—to "get what they paid for."

Option 2 allocates costs to tenants by using historical data on the total number of users who access LRC services. This method has an advantage over Option 1 because rates are based on actual use. Charging for services per user also is inequitable, however, in that a five-minute session has the same price as a one-hour session. Moreover, without the benefit of login software that allows DCTEE to track the tenant that the user is associated with, there is no way to allocate costs to tenants.

Option 3 allocates costs on the basis of the actual amount of time a user is using a terminal. We calculated a per-hour, per-user cost of approximately $5. To determine the number of users, we examined the operational capacity of the LRC and, based on interviews with the technical manager, estimated that the center was half-full at all times. Over the course of a fiscal year, this estimate yields more than 23,500 user-hours annually.

Of course, implementing Option 3 also would require new software—at minimum, a program that can record total user time on a terminal. DCTEE has the option of charging users directly (for example, for recreational use) or charging tenants. In the latter case, recording software must also be able to **assign a user to a tenant**.

Option 3 has several advantages. First, it is the most equitable method because it directly allocates costs to users on the basis of their demand. In addition, to the extent that users utilize the LRC for classroom or professional work, this option minimizes gaming behavior—again, because users are charged commensurate to their use. We believe that implementing this option would maintain current usage behavior. Because DCTEE cannot monitor recreational versus professional use, however, this policy would mean that at times tenants may be paying for recreational use of computers by their employees. This option also increases monitoring costs associated with the LRC. These additional monitoring costs should be limited, however, to software identification and installation and should not be significant.

Note that under Option 3, DCTEE will not recoup total costs if total usage dips below 23,500 hours. Discussions with staff members, however, indicate that the number of LRC users is increasing.

VTC SESSIONS

We propose allocating VTC costs on an actual cost basis. In this case, the length of the session (number of minutes) would determine total costs. Again, data on organizations requesting VTC sessions and the length of sessions were not available. In the future, DCTEE should time each session and record the number of channels the session required.

Previously, DCTEE has tried to charge non-DoD organizations for VTC sessions. This approach, however, has merely created an incentive for such tenants to request VTC services indirectly through a DoD intermediary in an effort to avoid charges. Because the proposed rate structure charges tenants only for actual communications costs incurred by the base, we believe that the most equitable way to allocate product costs is to charge all non-USAG organizations, on and off the post, that request VTC services.

SUMMARY

Rates for VTC sessions are based on actual incremental costs but do not include scheduling and set-up expenses. These costs are minimal, however; therefore, the product rate includes these services.

A portion of the rates for equivalency testing (that of the test) and non-military training (for teaching support) are also based on actual incremental costs. These charges should remain accurate for each billing cycle.

With the exception of the LRC, rates for remaining products and services are based on average costs. Therefore, charges for these products must be adjusted at the end of the year on the basis of actual use.

Finally, we developed three rate options for the LRC. Two are based on average costs; one is based on incremental expenses. We recommend charging customers for their actual time on a terminal, based on the center's capacity and estimated rate of use. This option would require DCTEE to install software that could identify users and their organizations.

Chapter 5
Custodial Services

BACKGROUND

Custodial services at Fort Detrick are provided entirely through contract. The contract specifies levels of service and commensurate rates that customers pay. Service levels related to restroom cleaning, dusting, mopping, and waxing are fixed. The only service level that customers can specify is the frequency of office cleaning: Customers can choose to have offices cleaned one to five times a week. Organizations are free to define their preferred levels of service independent of each other. The garrison currently has its offices cleaned three times a week. We reviewed total product costs and, where necessary, established a new product rate and determined the implications for tenants. We also determined savings to the installation if the service frequency for cleaning USAG offices were reduced to once or twice a week.

PRODUCT AND COST

Table 5-1 shows total product costs for custodial services—nearly $1.5 million.

Table 5-1. Custodial Services—Cost Summary

Product	Annual cost
Contract	$1,454,880.34
Contract oversight	34,412.80
Indirect support	6,568.21
Total	$1,495,861.35

Appendix C provides greater detail regarding the allocation of costs. We consider all of these costs to be eligible for reimbursement.

ALLOCATING COSTS

Costs for custodial services are allocated on the basis of square footage. Tenants are required to pay for direct contract costs only, so the installation is not recouping its full costs for delivering this service. In particular, oversight costs associated with quality assurance are not included. We recommend that total product costs be passed on to customers to reflect the true level of resources required to deliver these services. The additional cost of oversight services, including the proper allocation of indirect cost, was approximately $40,000 last fiscal year. This

figure amounts to an increase of $0.0003 per square foot, based on the total area indicated in the contract.

Table 5-2 shows existing contract rates for varying levels of service and the impact of including oversight costs. Total costs are determined by multiplying the area by the frequency of service.

Table 5-2. Custodial Services—Product Rates

Frequency	Actual area (SF)	Area x frequency	Unit price ($/SF)	Total contract cost	Oversight rate	Total oversight cost	Total cost
1 day/week	5,653	293,956	0.0135	$3,968.09	0.0003	$91.14	$4,059.23
2 days/week	1,336	138,944	0.0134	1,860.51	0.0003	43.08	1,903.59
3 days/week	535,827	83,589,012	0.0102	849,915.52	0.0003	25,917.29	875,832.81
5 days/week	151,220	39,317,200	0.0097	380,778.04	0.0003	12,190.54	392,968.58
Restrooms (5 days/week)	33,976	8,833,760	0.0247	218,358.18	0.0003	2,738.96	221,097.14
Total	728,012	132,172,872	NA	1,454,880.34	NA	40,981.01	1,495,861.35

[a] This figure is calculated by multiplying the actual area by the cleaning frequency, and then multiplying the total by 52 weeks.

COST SAVINGS

We also determined potential cost savings for the garrison by reducing its level of custodial services. USAG offices are cleaned three times per week. We selected buildings that house garrison operations. Using the square footage identified in the contract, we identified approximately 525,000 square feet that qualified as USAG space (including restrooms). Table 5-3 summarizes our analysis. The first part of the table shows the garrison's estimated costs for its current level of service. The second part shows estimated costs if service were reduced to once a week, and the third part shows costs if service were reduced to twice a week.

Table 5-3 shows that reducing cleaning services to twice a week represents a cost savings of approximately $204,000, or 23 percent. Reducing services to once a week represents a savings of nearly $550,000—about 60 percent of current costs.

5-2

Table 5-3. Custodial Services—Cost Savings Analysis

Level of service (USAG only)	Actual area (SF)	Area x frequency	Unit price ($/SF)	Contract cost
Current				
1 day/week cleaning	941	48,932	0.0135	$660.53
2 days/week cleaning	1,336	138,944	0.0134	1,860.51
3 days/week cleaning	380,774	59,400,744	0.0102	603,974.29
5 days/week cleaning	116,709	30,344,340	0.0097	293,877.95
Restrooms (5 days/week)	25,147	6,538,220	0.0247	161,615.64
Total	524,907	96,471,180		$1,061,988.93
Reduced: once a week				
Once a week service (USAG only)		(SF x 1 x 52)		
1 day/week cleaning	499,760	25,987,520	0.0135	350,803.71
Restrooms (5 days/week)	25,147	6,538,220	0.0247	161,615.64
Total	524,907	32,525,740		$512,419.36
Reduced: twice a week				
Twice a week service (USAG only)		(SF x 2 x 52)		
2 days/week cleaning	499,760	51,975,040	0.0134	695,964.00
Restrooms (5 days/week)	25,147	6,538,220	0.0247	161,615.64
Total	524,907	58,513,260		$857,580.14

SUMMARY

The garrison should include the cost of oversight when it charges tenants for custodial services. The marginal cost for oversight is small: approximately $0.0003 per square foot. If the area serviced by the contractor remains the same, end-of-year adjustments will not be needed for oversight services.

In addition, we estimate that the garrison could save approximately 23 percent of its own current custodial costs by reducing cleaning service frequency to twice a week. It would save 60 percent if service frequency were reduced to once a week.

Chapter 6
Facilities Engineering

BACKGROUND

Facilities Engineering is part of the Directorate of Installation Services (DIS). This area is responsible primarily for providing engineering support for building and construction work on the installation. The types of services provided by Facilities Engineering include design, estimation, construction, and project management. A considerable portion of the activity also is devoted to managing contracts related to overall building and equipment maintenance on the installation.

PRODUCTS AND COSTS

Facilities Engineering essentially offers three products:

◆ *Project engineering support, tenants:* Services provided to support projects requested directly by tenants for major facility alterations. Although portions of this work may be contracted out, the entire project typically is managed in-house. These services represent direct project work that is reimbursed.

◆ *Project engineering support, garrison:* Services provided to support projects requested by a garrison organization for major alteration to a facility. Portions of this work also may be contracted out. These services represent direct project work that is not reimbursed.

◆ *General engineering support:* General services undertaken by the engineering staff that are vital for the overall upkeep of the installation. These services include master planning, preparation of studies and design prints, and internal consulting to Operations and Maintenance. These services are referred to as indirect work.

Facilities Engineering also oversees several contracts that support Operations and Maintenance within Installation Services; examples include contracts for elevator repair and grass mowing. We did not include these activities in the foregoing product set because they support a service area that is outside the purview of this study. The expenses associated with these services are shown in Table 6-1 but are listed as nonreimbursable.

Table 6-1. Facilities Engineering—Cost Summary

Product	Annual cost[a]
Nonreimbursable	
Project engineering support—garrison	$217,180.52
Custodial contracts[b]	40,981.01
Maintenance contracts	94,742.99
Other functions	58,179.99
Subtotal	$411,084.51
Potentially reimbursable	
General engineering support	288,975.70
Project engineering support—tenants	213,257.43
Subtotal	$502,233.13
Total	$913,317.64

[a] Contract and supply costs are not included in total product costs because this information was not available when this report was written. Contract expenses for construction would increase project engineering services costs. Maintenance contract expenses would increase costs for products outside this service area. Increases relating to supply costs are expected to be minimal.

[b] Custodial services are designated as a separate service area. Therefore, costs are not reimbursable here. Contract costs were not included in the total.

Table 6-1 shows that total costs in FY99 were about $913,000. We identified approximately $502,000—more than half of the total—as eligible for reimbursement.

In Facilities Engineering, engineering resources that support direct project work are charged to work orders (based on time spent). The rest is considered indirect work. We used DIS data to allocate resources between general engineering support and project work. Data estimates show that about 37 percent of engineering resources were dedicated to direct project work in FY99. The remaining 63 percent were devoted to general installation-wide activity.

Table 6-1 shows that the portion of direct project activity that supports requests by the garrison are not reimbursable. We also used DIS data to allocate resources for project engineering support between reimbursable and nonreimbursable activity. Data show that approximately 48 percent of all projects completed in FY99 were not reimbursable. The remaining 52 percent were reimbursable activity—that is, project work requested by tenants. Further details on how we allocated costs appear in Appendix D.

ALLOCATING COSTS TO CUSTOMERS

Table 6-2 shows the total costs for products that are potentially reimbursable. It also shows the basis for allocating costs to tenants and final product rates.

Table 6-2. Facilities Engineering—Product Costs, Bases for Allocation, and Rates

Product	Annual cost	Basis for allocation	Usage[a]	Rate
Direct engineering support, tenants	NA	By project per tenant	NA	Actual cost
General engineering support	$288,644.69	Per square foot	1,960,181	$0.15

[a] Facilities Engineering currently oversees 1.96 million gross square feet.

Determining Costs

PROJECT ENGINEERING SUPPORT, TENANTS

Direct projects can be requested by tenant or USAG organizations. When such projects are initiated based by tenant request, expenses related to the project are charged directly to the customer on an actual cost basis. Staff members track project charges, including materials, supplies, and government and contract labor, based on work order numbers.

Fort Detrick should continue to charge tenants for actual expenses. We recommend that indirect costs related to DIS and Engineering offices be included in these charges. We allocated indirect costs on the basis of direct labor resources that senior managers oversee. Again, the cost allocation model in Appendix D provides details on how these costs were incorporated.

Product costs are not shown in Table 6-2 because these expenses are tracked at the project level and can vary by tenant.[1]

PROJECT ENGINEERING SUPPORT, GARRISON

Again, none of these costs are reimbursable because they provide services that are dedicated to support the garrison.

GENERAL ENGINEERING SUPPORT

Fort Detrick does not charge tenants for general engineering support services. Because these services represent "core" engineering activities for the upkeep of

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[1] The costs shown in Table 6-1 represent LMI estimates of direct and indirect resources incurred in FY99 for reimbursable project activity. These figures include engineering resources, construction contract management, supervision, and indirect costs. They do not include actual contract costs related to design or construction incurred last fiscal year.

buildings throughout the installation, all personnel on the post benefit. The garrison should consider these services a part of its landlord services and recoup a portion of these expenses from tenants. Again, total product costs should include indirect support provided by Facilities Engineering and the Directorate.

It is important to note that labor costs for general support are calculated on the basis of the difference between total engineering resources and those charged to direct project work. That is, costs for general engineering support can vary with the amount of direct project work in a particular time period. This factor has an important implication for tenant rates (see below).

Determining Allocation

PROJECT ENGINEERING SUPPORT, TENANTS

Fort Detrick should continue to charge customers on the basis of actual project costs. These charges are tracked by work orders that itemize various resources, including project management, estimation, and architectural input.

GENERAL ENGINEERING SUPPORT

As a component of overall landlord services, general engineering support costs should be allocated to tenants on the basis of square footage. These services are related to the upkeep of all facilities; therefore, benefits can be distributed on the basis of building size. Using the installation's total gross area, the annual rate for these services came to $0.15 per square foot.

Again, costs for this service are largely determined after engineering resources have been charged to project work. Thus, rates for general engineering support services can fluctuate considerably, depending on the amount of direct project work in a given year. The Directorate believes that staff can benefit from timecard training and that the current level of costs attributed to general engineering support may be unduly high. The garrison should not pass on operational inefficiencies to tenants. Therefore, if the garrison chooses to charge tenants for this service, we recommend that a price cap be established on the rate.

The garrison should work with the Directorate to arrive at a reasonable cap. In the private sector, general engineering services typically are a component of overall building maintenance and repair expenses for landlords. National data from the Building Owners and Managers Association for 1999 indicates that on average, private-sector landlords located in suburban locations paid $1.09 per square foot for overall building maintenance.[2]

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[2] Government managed buildings in suburban locations averaged $1.34 per square foot for maintenance. There is not a benchmark in private-industry narrowly defined for general engineering services. However, our experience indicates that total indirect costs should represent no more than 15 percent of direct engineering resources.

SUMMARY

Project engineering support that is being provided to tenants is already billed at actual project cost. Expenses for general engineering services are allocated on a square footage basis. Because expenses for this service are based on indirect activity, we recommend establishment of a price cap for this product rate.

Chapter 7
Information Technology

BACKGROUND

Most information technology services are handled by the U.S. Army Medical Information Systems and Services Agency (USAMISSA). This chapter consolidates findings for all of the technical service areas: communications, client services, and applications. Although USAMISSA's primary role is to support activity on the installation, the organization also reports to Fort Sam Houston under the Army Medical Department Command. Financial reporting and contract support is coordinated there.[1]

COMMUNICATIONS

The communications area provides major infrastructure support related to voice and data transmission (including e-mail), data processing, data storage, and Web hosting services. It also provides end-user support for e-mail, the Defense Messaging System, and video teleconferencing. We identified the following products:

- ◆ *Computer services:* Provides operational support for Fort Detrick's data centers. Among other capabilities, these centers provide data processing capability on mainframe and client-server platforms, including UNIX and Windows NT. Data storage services are also included.

- ◆ *Telecommunications:* Develops and maintains infrastructure that supports voice and data transmissions. Ensures sufficient bandwidth capacity and access for data transmissions.

- ◆ *Interactive services:* Provides end-user support for e-mail and Defense Messaging System capability.

- ◆ *Video teleconferencing (VTC):* Provides equipment setup and technical support for VTC sessions. Equipment is not provided.

Product costs are summarized in Table 7-1. Total costs are nearly $5.8 million. This area is particularly resource intensive because of high equipment costs and labor requirements for software and hardware maintenance. Moreover, computer

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[1] USAMISSA also houses Core Technology services. These resources provide research and development support and expertise. Most of these resources support activity outside Fort Detrick; therefore, we did not include their product costs in this report.

service operations that support the data center are maintained 24 hours a day, 7 days a week. We consider all of these products potentially reimbursable.

Table 7-1. Information Technology
(Communications)—Cost Summary

Product	Annual cost
Computer services	$3,396,732.01
Enterprise	2,991,327.12
UNIX	81,350.67
NT	323,421.16
Telecommunication services	1,617,010.87
Data	980,050.65
Telephone	636,960.22
Interactive services	585,060.63
VTC	278,414.72
Total	$5,876,585.17

Determining Costs

Table 7-2 lists the basis for allocating the costs for each product and the resulting rate. Appendix E provides further detail on how expenses were allocated for each product.

Table 7-2. Information Technology (Communications)—Product Costs,
Bases for Allocation, and Rates

Product	Annual cost	Basis for allocation	Usage	Rate
Computer services—enterprise	$ 2,991,327.12	Per CPU second	31,536,000	0.095
Computer services—UNIX	81,350.67	Per user	2,508	32.44
Computer services—NT	323,421.16	Per user	895	361.36
Telecommunication services	1,617,010.87	Per capita	5,341	302.75
Data	980,050.65		5,341	183.50
Telephone	636,960.22		5,341	119.26
Interactive services	585,060.63	Per user	2,223	263.19
VTC	278,414.72	Per hour	9,208	30.24

TELECOMMUNICATIONS

Costs for telecommunications infrastructure include resources for voice and data transmission. Typically, the infrastructure required to support telephone services (voice) is distinct from that required to support network services (data). Fort Detrick uses a trunk line to provide telephone service on post. It uses a combination of routers, hubs, and switches to provide required capacity and connectivity for data transmissions.

Total product costs for data transmission services include considerable labor costs for network and equipment maintenance. We included the cost of nine military personnel even though these salaries are not paid by the garrison. As user demand for more capacity increases, equipment costs that support that capacity also increase. Therefore, we also included equipment investments for data transmission services. Our method of accounting for equipment costs entails absorbing the full expense in the year of purchase.[2] Infrastructure improvements are needed every 1 to 3 years.

COMPUTER SERVICES

Major costs include expenses for hardware and software equipment and maintenance. Electricity costs for operating the equipment are not included; Fort Detrick continues to bear responsibility for these operating costs at the installation level.

INTERACTIVE SERVICES

Costs for interactive services include direct and indirect labor, equipment, and supplies. Direct labor resources include expertise provided by Core Technologies (an internal research and development arm at USAMISSA).

VIDEO TELECONFERENCING

VTC costs include direct support for scheduling, facilitating, and troubleshooting each session. Equipment is not provided; equipment expenses were insignificant.[3]

Determining Allocation

TELECOMMUNICATIONS

Network usage typically is gauged separately from telephone usage. Although every user has access to data and voice transmission, demands for network capac-

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[2] Accounting practices allow investments to be expensed in the year they were purchased or spread (or amortized) over the life span of the equipment. For example, computer servers, monitors, and printers typically can be used over a three-year span. Under the latter accounting method, one-third of these expenses would be incurred each year for three years. For the sake of simplicity, we recommend incurring all expenses in the year of purchase.

[3] On request, staff members assist customers with equipment purchasing.

ity are usually more varied. That is, some organizations may require greater connectivity than others. Moreover, some organizations may transmit significantly greater amounts of data on a daily basis than others. Therefore, for data transmission, the total capacity may benefit some users more than others.

In the private sector, telephone services usually are allocated on a per capita basis. Infrastructure costs for data transmissions also are allocated equally unless there is reason to believe that some organizations require significantly disproportionate amounts of bandwidth capacity. If that is the case, usage can be allocated on the basis of bandwidth usage. There are costs associated with adopting the latter approach, however, including investments in appropriate software and labor resources to track and report the information.

Fort Detrick does not currently track bandwidth usage. Information provided to LMI does not indicate that tenant organizations may be using bandwidth capacity that is disproportionate to their total strength. Because the benefits of telephone and broader telecommunication services benefit all personnel equally, we consolidated these costs and distributed them on a per capita basis.[4] Using total strength on the installation last fiscal year, we calculated an estimated annual rate of $302 per capita. The resulting annual costs for each tenant, based on FY99 figures, appear in Appendix E.

In the future, if the garrison has reason to believe that a per capita basis significantly distorts true usage for some users, it should make the investment to track bandwidth usage and allocate expenses for telephone and data services separately. We identify expenses for these two services separately in our cost allocation model for the garrison's future needs.

COMPUTER SERVICES

Determining the proper allocation for computer services is less straightforward. Determining usage on servers typically entails identifying software applications that reside on them and the extent to which a customer uses each application. At Fort Detrick, this determination is complex. For example, multiple customers may have to access the same applications for their data processing needs. Others may have software dedicated for their needs. USAMISSA does not track users and their processing time per application for the UNIX or NT platforms. Although tracking software is available, appropriate software varies by the type of application being tracked. Therefore, USAMISSA cannot address this issue without incurring additional installation and monitoring expenses. USAMISSA does track

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[4] USAMISSA does track the number of devices (e.g., switches, routers, and hubs) located on the installation. We recognize that maintenance costs are driven by the number of devices. However, devices are located strategically to ensure an optimal level of connectivity for users. Furthermore, the location of a device does not correspond to benefit. That is, a device located at one organization may serve several others. Conversely, some organizations may not have devices located at their sites but are connected to the installation-wide network.

the number of account users by organization; we used this information to allocate expenses among tenants.

USAMISSA does have the capability to track processing time by user for its enterprise (mainframe) server. For the enterprise server, we calculated a unit cost on the basis of total CPU capacity.[5] We calculated an hourly rate of $341 ($0.09 per CPU second). Current customer charges are based on an hourly rate of $270.

INTERACTIVE SERVICES

Although support for interactive services is available for all personnel on the installation, actual use of these services is quite varied. Some organizations actively use this service, whereas others do not request any support at all. Staff members track the number of users from each organization who request support. Although the number of users does not indicate the extent of support required by a caller, it does serve as a good proxy for identifying the degree to which tenants rely on this service. Using total number of users from FY99, we calculated a per-user rate of $263.

VIDEO TELECONFERENCING

Again, not all tenants request this service; therefore, expenses should not be distributed on a per capita basis. Data are tracked on the number of support hours provided to each customer throughout the fiscal year. On the basis of the total number of hours of staff support for VTC services last year, we calculated an hourly rate of $30. This method allows Fort Detrick to charge only tenants that request this service and to charge for the actual extent of time that services were utilized.

On the basis of usage data kept by USAMISSA, we calculated total FY99 expenses by tenant for telecommunications, interactive, and computer services. These results are listed in Appendix E.

CLIENT SERVICES

Client Services provides three levels of assistance to end users. The help desk (Level 1) serves as the primary point of contact for computer problems. Levels 2 and 3 provide higher levels of support for moves, upgrades, and problems that require more troubleshooting. Table 7-3 summarizes product costs, which total nearly $1.9 million.

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[5] Annual estimates were based on the number of processing seconds possible in a 24-hour, 7-day-a-week operation for one server.

Table 7-3. Information Technology (Client Services)—
Cost Summary

Product	Annual cost
Nonreimbursable	
Level 1—help desk (internal)	$66,592.44
Levels 2 and 3—internal support	296,147.00
Levels 2 and 3—garrison support	353,928.00
Reimbursable	
Level 1—help desk	599,331.96
Levels 2 and 3—dedicated support	565,855.00
Total	$1,877,936.86

Determining Costs

Table 7-4 summarizes total product costs, the basis for allocating costs to users, and the final product rate.

Table 7-4. Information Technology (Client Services)—Product Costs,
Bases for Allocation, and Rates

Product	Annual cost	Basis for allocation	Usage	Rate
Level 1 (help desk)	$599,332[a]	Per tenant organization	Varies by tenant	Fixed annual fee
Levels 2 and 3—dedicated support	565,855	Per tenant organization	Varies by tenant	Actual cost

[a] Costs do not include expenses that support requests from internal staff at USAMISSA.

LEVEL 1—HELP DESK

In determining which costs to pass onto tenants, we noted that about 10 percent of client support is provided internally to personnel at USAMISSA. To avoid passing on costs for internal staff support, we reduced the total product cost of help desk services, as shown in Appendix E, by 10 percent. Using this methodology, we estimated that approximately $600,000 in resources are needed to support staff who are external to USAMISSA. The remaining $67,000 supports internal requests (shown as nonreimbursable in Table 7-3). Total product costs include direct and indirect labor, hardware, and software expenses.

LEVELS 2 AND 3

At these levels, support staff members are dedicated to serving particular clients. Again, not all tenants ask or require Client Services to provide Level 2 or 3 support. Along with the garrison, technician teams provide internal support to

USAMISSA and external support to four tenants. We calculated actual expenses for each client on the basis of the total cost of the technician team that supports it. However, direct labor costs for Level 3 support, which represent less than 2 percent of overall activity, were not included in total product costs.[6] Again, we identified dedicated support to the garrison as nonreimbursable (see Table 7-3).

Determining Allocation

LEVEL 1—HELP DESK

The help desk is available as a resource to all personnel on the installation. In the private sector, this type of service typically is charged at a fixed monthly or annual rate, and the user is allowed a specified number (or even an unlimited number) of customer calls. At Fort Detrick, however, not all organizations take advantage of help desk services. For example, some organizations have internal resources that they rely on for support. Other organizations may use service providers off the installation. Therefore, we allocated costs on the basis of tenants' level of dependency on the help desk.

Last year, the help desk assisted nearly 2,600 users and successfully responded to more than 15,000 requests.[7] The number of calls is a good indicator of actual use. For example, Appendix E shows that some tenants (e.g., NCI) do not use help desk services at all. For others, such as the Joint Vaccine Acquisition Program Office (JVAP) and the Air Force Medical Logistics Office (AFMLO), nearly all of their employees have requested help desk services at some point in the year.

We did not base the product rate on costs for each call. Client Services does not want to discourage customer interest in their services by charging on a per-call basis. The Client Service manager also indicated that the help desk has ample capacity to serve an increase in call volume.[8] Therefore, the current product rate can support an unlimited number of calls from each user, at least for the foreseeable future.

We recommend that Fort Detrick rely on the current number of calls from each tenant to establish an overall annual cost for help desk services. This fixed cost can then allow customers an unlimited number of calls, regardless of the number of additional users who may call in the future. For example, based on last year's call volume, the U.S. Army Medical Material Agency (USAMMA) would pay

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[6] A problem that cannot be resolved with Level 2 support is referred to staff from Core Technologies and categorized as Level 3. Estimates of total labor resources for Level 3 support were not available. A myriad of staff within Core Technologies may handle these calls; the portion of staff time that this responsibility represented was unclear. Because Level 3 support represents less than 2 percent of overall Client Service activity, however, we expect these expenses to have a minimal impact on total product cost.

[7] These figures do not include users or calls from within USAMISSA.

[8] Discussions suggest that calls have been doubling approximately every three months. Management anticipates that the staff will be able to handle this growth for the foreseeable future.

about $45,000 a year for help desk services. Although USAMMA logged about 2,100 calls last year from 204 users, this fixed expense would allow the organization to increase its call volume for the next few years and support any number of employees.

Appendix E includes a list of expenses that each tenant can expect, their current number of recorded users and calls, and the range of annual calls that could be easily accommodated for the same cost. Note that less than 1 percent of all calls are not assigned to any organization.

LEVELS 2 AND 3

Again, not all tenants ask or require Client Services to provide Level 2 or 3 support. In fact, Client Services provides Level 2 and 3 support to only four tenant organizations. Because the annual service costs to support a particular client can be determined (on the basis of support of the technician pool), we allocated expenses to tenants on the basis of actual costs. Only tenants that request this level of customer support are charged. Appendix E itemizes total annual expenses for each tenant for this service. The level of support that a particular tenant's standing technician pool can provide is considered its standard level of service. Any further contractual or temporary help is considered an additional level of service and can be charged at actual cost.

The technician pool that supports the garrison also serves the needs of other organizations, if required. If the garrison would like to be reimbursed for these expenses, it would have to identify which organizations are served and to what degree. For the purposes of this study, however, we have categorized these expenses as nonreimbursable.

APPLICATIONS

The applications staff provides three distinct services to tenant and USAG personnel:

◆ *Development:* Staff members develop applications, programs, or systems according to a customer's request and specifications. Customer service also is provided through a point of contact who keeps customers apprised of the project's status.

◆ *Dedicated systems support:* Staff members provide technical support, including programming and maintenance, for systems that are specific (or dedicated) to a particular organization.

◆ *General systems support:* Staff members provide technical support, including programming and maintenance, for DoD systems that serve the needs of several organizations, including the garrison.

Costs to develop applications are currently charged and reimbursed at actual cost. Total costs for the remaining products in this service area are summarized in Table 7-5. Application services required approximately $1.2 million in FY99.

Table 7-5. Information Technology (Applications)—
Cost Summary

Product	Annual cost[a]
Nonreimbursable	
Dedicated support—USAG	$292,542.94
Potentially reimbursable	
Dedicated support—USAMRIID	623,558.78
General system support	323,010.16
Subtotal	946,568.94
Total	$1,239,111.88

Note: USAMRIID = U.S. Army Medical Research Institute of Infectious Disease.

[a] Based on FY99 costs.

Approximately half of all resources in this service area provided dedicated system support to USAMRIID. Note that USAMRIID currently reimburses the garrison for the direct labor costs associated with this service. Another 24 percent of resources support systems is dedicated for USAG use. Examples include relatively small applications used by the Hazardous Waste and Maintenance operations, as well as larger financial reporting systems.

Finally, the remaining 26 percent of resources support a variety of applications that seem to benefit all DoD tenants on the installation. Of those resources, about 90 percent support DoD purchasing, financial, and manpower systems that allow the garrison to monitor and report installation activity. A small portion of these resources support applications that seem to be shared by some tenants. We based this determination on our interpretation of system descriptions provided by Applications staff. The garrison should review the list of systems it currently funds and determine if any of these systems justify reimbursement from tenants. Because the garrison must make this policy determination, we have categorized the costs of these services as "potentially reimbursable." Appendix F contains brief descriptions of each application.

Allocating Costs to Customers

Table 7-6 summarizes the costs allocated to tenants and the rate for each service.

Table 7-6. Information Technology (Applications)—Product Costs,
Bases for Allocation, and Rates

Product	Annual cost	Basis for allocation	Usage	Rate
Dedicated support—USAMRIID	$623,558.78	Total annual cost	NA	Actual cost
General systems support	323,010.16	Per capita, DoD strength only	3,887	$83.10

DEDICATED SYSTEMS SUPPORT

To a large extent, support for systems dedicated for USAG use do not qualify for reimbursement because the garrison provides the wages for all government employees on site at USAMISSA. Contractual labor may be involved in supporting some of the USAG systems, however. Although contract labor is reimbursed by tenants and paid for by the garrison, some shortfall is covered by Fort Sam Houston. In the future, USAMISSA may want to consider "charging" the garrison for contractual labor associated with its systems support, so the garrison can bear its fair share accurately.

Tenants such as USAMRIID already are charged for the full costs associated with direct labor required to support their systems. Expenses related to equipment, supplies, and indirect costs are not being reimbursed, however. We allocated these costs on the basis of the percentage of direct labor expenses devoted to providing each service. We recommend that the garrison use this cost allocation method to recoup the total cost of its services.

GENERAL SYSTEMS SUPPORT

Again, the garrison must make a determination about which systems, if any, for which tenants should pay service costs. Appendix E itemizes the cost of support services for each system. If any systems or application costs are reimbursed, we recommend including equipment, supplies, and indirect expenses.

We did not include expenses related to technology conferences or other employee training in the total cost of any product.

Determining Product Rates

DEDICATED SYSTEMS SUPPORT

Identifying whom to charge for dedicated systems support is quite clear: Tenants that require support from Applications staff for dedicated systems are the only ones charged. Furthermore, they are charged for the full support costs associated with providing this service, on an actual cost basis.

GENERAL SYSTEMS SUPPORT

Identifying whom to charge for general systems support is less straightforward. The descriptions of the systems provided to LMI were not sufficient to determine which DoD tenants really benefit from the support of these services. Because the majority of costs in this product area supported two DoD systems that had considerable scope (purchasing and financial reporting), we assumed that these services benefited all DoD personnel equally. Therefore, we used the full DoD strength on post for FY99 as the basis for allocating costs. Under this method, the product rate for general system support is approximately $83 per capita. Again, the garrison should review the list of system applications to determine which tenants, if any, significantly benefit from the support of these services.

SUMMARY

Costs for telecommunications infrastructure to support voice and data transmissions can be allocated fairly on a per capita basis. On this basis, the garrison would bear approximately 16 percent of total product costs.

Costs for providing interactive services and client-server support can be allocated on a per-user basis. For client-server support, we recommend tracking of users, instead of account holders, as much as possible. Rates for these products are based on average costs and may require end-of-year adjustments, depending on actual use. Therefore, an accurate list of users for these services must be maintained.

We estimated costs for VTC sessions and enterprise server support on the basis of actual capacity. Therefore, no adjustments should be needed.

Information Technology also provides help desk support. Because all tenants do not take advantage of these services, we allocated costs on the basis of the total number of calls from each organization. Because staff resources have demonstrated their ability to handle considerable increases in call volume, fixed tenant fees for this service can support a broad range—even an unlimited number—of calls for assistance. Thus, the product rate would have to be adjusted only when tenants that don't currently access the service begin to make a significant number of requests.

Finally, Applications staff members support several systems that benefit DoD organizations on-site. If the garrison chooses to be reimbursed for this activity, it can do so on a per capita basis.

Appendix A
Refuse Removal

This appendix contains detailed information on product costs and usage for Refuse Removal. Tables A-1 through A-3 show cost elements for each product and how they were allocated across the product set. Tables A-4 through A-10 show usage data on which product rates were based and implications for selected tenants.

Cost Allocation Model

- ◆ Table A-1. Product Cost Elements

- ◆ Table A-2. Allocation of Direct Labor

Usage Data

- ◆ Table A-3. Determining Product Rates

- ◆ Table A-4. Usage and Charges for Selected Tenants

- ◆ Table A-5. Usage: Calculating Pickups for Shared Dumpsters

- ◆ Table A-6. Usage: Medical Waste Pickups by Tenant

- ◆ Table A-7. Municipal Waste Pickups for Non-NCI Tenants

- ◆ Table A-8. FY99 Municipal Waste Pickups for NCI

- ◆ Table A-9. Usage: Recycling Expenses by Tenant

Table A-1: Product Cost Elements

Product	Direct labor	Direct supervisor	Equipment	Natural gas	Supplies/maintenance	Ted Hahn	Larry Potter	Rosell	Total cost
Municipal waste pickup	58,048.40	8,573.09	41,155.67	-	3,820.83	3,416.84	4,187.37	1,795.41	120,997.60
Medical waste pickup	31,413.00	4,639.34	41,155.67	-	3,820.83	3,416.84	4,187.37	1,795.41	90,428.46
Recycling pickup	97,765.55	14,438.85	41,155.67	-	3,820.83	3,416.84	4,187.37	1,795.41	166,580.52
Municipal disposal	92,092.28	13,737.54	-	77,486.67	3,820.83	3,416.84	4,187.37	1,795.41	196,536.93
Medical waste disposal	40,818.28	6,028.39	-	38,743.33	3,820.83	3,416.84	4,187.37	1,795.41	98,810.45
Recycling disposal	93,248.85	13,771.79	-	-	3,820.83	3,416.84	4,187.37	1,795.41	120,241.09
	413,386.35	61,189.00	123,467.00	116,230.00	22,925.00	20,501.06	25,124.21	10,772.44	793,595.07

Notes:
1. All costs represent FY99 actual expenses as provided by DIS Budget Office.
2. Direct supervisor costs are allocated as a percentage of direct labor in each product category.
3. Overhead— including Ted Hahn, John Rosell, and the Director's office— is allocated equally among products.
4. Total product costs for Recycling do not not deduct sales revenue for the purposes of this table (see Table A-4).

Table A-2: Allocation of Direct Labor

Positions	FY99 wages	Municipal pickup	Medical pickup	Recycling pickup	Municipal disposal	Medical disposal	Recycling disposal	Total
MVO-G7	43,254.00	1	0	0	0	0	0	1
MVO-G7	36,986.00	0.4	0	0.4	0.1125	0.0875	0	1
MVO-G5	34,361.00	0	0	1	0	0	0	1
Dist.Spc	49,084.00	0	0	0.4	0	0.6	0	1
Lab-G3	31,413.00	0	1	0	0	0	0	1
Laborer	30,123.00	0	0	0	0	0	1	1
Laborer	31,326.00	0	0	0	0	1	0	1
Laborer	31,326.00	0	0	0.925	0	0	0.075	1
Incinerator Operator 1	42,936.00	0	0	0	1	0	0	1
Incinerator Operator 2	37,582.00	0	0	0	0	1	0	1
Incinerator Operator 3	45,920.00	0	0	0	1	0	0	1
Total	414,311.00	58,048.40	31,413.00	97,765.55	93,016.93	40,818.28	93,248.28	414,311.00
Percentage		0.14	0.08	0.24	0.22	0.10	0.23	
Direct supervision	61,189.00	8,573.09	4,639.34	14,438.85	13,737.54	6,028.39	13,771.79	

Notes:
1. Labor allocation is based on number of annual hours a staff member spends on each task.
2. FY99 wages are fully burdened.

Table A-3: Determining Product Rates

Potentially reimbursable		FY99 costs	Basis for reimbursement	Actual FY99 usage	Actual rate	Proposed for ISSA
Municipal waste		120,997.60	Per pickup	12,064.00	10.03	10.03
Medical waste	Pickup	189,238.91	Per pickup	9,062.00	20.88	20.88
	Disposal	90,428.46				
		98,810.45				
Recycling	Pickup	228,675.26	Per capita	5,341.00	42.82	42.82
		166,580.52				
	Disposal	120,241.09				
	(Sales)	(58,146.36)				

Table A-4: Usage and Charges for Selected Tenants

FY99 Usage for Selected Tenants

Tenant	Municipal pickups	Medical pickups	Strength
NCI	6,110.00	8,101.00	1,848.00
USAMRIID	800.00	869.00	565.00
1110th	142.00	0.00	293.00
1108th	39.00	0.00	72.00
TAO	14.00	0.00	31.00
Product Rates	10.00	21.00	43.00

FY99 Charges for Selected Tenants

Tenant	Municipal waste	Medical waste	Recycling	Total costs
NCI	32,471,886.32	170,121.00	1,564,913.00	310,685.00
USAMRIID	8,918,334.97	18,249.00	384,552.00	50,544.00
1110th	3,201,453.58	0.00	165,571.00	14,019.00
1108th	0.00	0.00	0.00	3,486.00
TAO	2,286,752.56	0.00	229,663.00	1,473.00

Note: Data are based on FY99 actual usage.

Table A-5: Usage: Calculating Pickups for Shared Dumpsters

1108th municipal pickups:

Building Number	Dumpster site	Pickups (biweekly)	Annual pickups	Tenants	Square feet	Pickup allocation	Number
1435	1yd	3	78	1108th	24345	50%	39
				Bldg 1435	24345	50%	39
Total 1108th					48690		39

1110th municipal pickups:

Building number	Dumpster site	Pickups (biweekly)	Annual pickups	Tenants	Square feet	Pickup allocation	Number
1671	1yd	6	156	1110th	76638	91%	142
				TAO	7440	9%	14
Total 1110th					84078		142

USAMRIID municipal pickups:

Building number	Dumpster site	Pickups (biweekly)	Annual pickups	Tenants	Square feet	Pickup allocation	Number
1301	1yd	2	52	USAMRIID	6734	14%	7
				USDA	41067	86%	45
					47801		

Building number	Dumpster site	Pickups (biweekly)	Annual pickups	Tenants	Square feet	Pickup allocation	Number
1412	1yd	5	130	USAMRIID	ALL	100%	130

Building number	Dumpster site	Pickups (biweekly)	Annual pickups	Tenants	Square feet	Pickup allocation	Number
1425	1yd	10	260	USAMRIID	244225	98%	663
	8yd	10	260	Health Clinic	4834	2%	13
	4yd	6	156				
			676				

| Total—USAMRIID | | | | | 249059 | | 800 |

Table A-6: Usage: Medical Waste Pickups by Tenant

Month	USDA[1]	USAMRIID[1]	NCI[2]	Total
Sep-99	7	75	726	808
Aug-99	8	78	742	828
Jul-99	8	93	743	844
Jun-99	7	62	710	779
May-99	9	71	698	778
Apr-99	9	82	758	849
Mar-99	9	94	753	856
Feb-99	9	66	649	724
Jan-99	5	53	592	650
Dec-98	6	66	641	713
Nov-98	6	62	517	585
Oct-98	9	67	572	648
Total	92	869	8101	9062

Table A-7: Municipal Waste Pickups for Non-NCI Tenants

Building	Customer name	Dump # site[1]	Frequency[2]	Annual[3]
122	BLDG-GRNDS		2	52
190	STM PLANT		2	52
199	BLDG-GRNDS		2	52
201	DATA SYST		2	52
201	DFAE			
201	PROVOST MARSHAL			
263	U&PC		2	52
374	DEPT/AGRIC		2	52
375	DECON		2	52
459	BLDG-GRNDS		2	52
501	LIBRARY		2	52
501	SUPPLY			
521	NAVMEDMAT		5	130
568 R	USACEHR		2	52
611	COMMANDER		1	26
611	DATA SYST			
622	U&PC		2	52
623	DMLLS		2	52
660	VET CLINIC	3yd	2	52
660	BOQ-BEQ	8yd	1	26
713	POST EXCH		2	52
718	FD CLUB		4	104
801	DPCA		2	52
810	DPCA		5	130
810	DPTSEC			
810	DIO			
810	DATA SYST			
810	COMPTROLLER			
810	COMMANDER			
810	CIV PERS			
810	A.C.S.			
810	USAMRDC			
817	PURCHASING		2	52
833	SPORTS		2	52
901	TMMMC		2	52
904	BRAC		1	26
915	BOWLING		2	52
917	DPCA		2	52

Table A-7: Municipal Waste Pickups for Non-NCI Tenants (Continued)

Building	Customer Name	Dump # site	Frequency[1]	Annual[2]
924	CIV PERS		2	52
949	REC SVCS		2	52
1054	MATMO		2	52
1054	USAMDA			
1054	USAMRDC			
1059	USAMDA		2	52
1301	DEPT/AGRIC		2	52
1301	USAMRIID			
1412	USAMRIID		5	130
1422	DATA SYST		4	104
1423	AFMLO		4	104
1423	DMSB			
1423	USAMMA			
1425	HLTH CLIN	8yd	10	260
1425	USAMRIID		10	260
1425	USAMRIID	4yd	6	156
1430	BARRICKS		4	104
1431	REC SVCS	3yd	2	52
1431		8yd	2	52
1432	AFMLO		4	104
1432	USAMMA			
1434	Walter Reed		4	104
1435	1108TH		3	78
1435	BLDG 1435			
1500	DSE		2	52
1505	FIRE ARMY		2	52
1520	COMMISSARY	C2	10	260
1520	SUPPLY		2	52
1520	EDUCATION CENTER	C1	10	260
1530	DPCA		4	104
1540	FORCE PROTECTION	B	1	26
1540	1111TH	A	1	26
1607	AFMIC		4	104
1650	DCL		1	26
1671	1110TH SIGNAL		6	156
1671	TAO			
1674	NAVEMEDMAT		6	156
1674	BARRICKS			
1681	NAVEMEDMAT		6	156
1685	ECTC GEN		6	156
1685	SATCOM			
1775	CHAPLAIN		4	104
SUBTOTAL			190	4940

Table A-7: Municipal Waste Pickups for Non-NCI Tenants (Continued)

Outdoor Receptacles

Mess Hall	6	156
Pond[3]	4	130
Ball Field	2	52
Barracks 1	6	156
Barracks 2	2	52
Barracks 3	2	52
Barracks 4	6	156
Grdn Plots	1	26
LARF (Farm)	2	52
Flair	2	52
Swr Plant	2	52
Wtr Plant	2	52
S-11	1	26
Subtotal	38	1014
Total non-NCI	228	5954

[1] A blank cell indicates that only one dumpster is located at the building.

[2] Frequency is based on number of pickups every two weeks.

[3] Annual number of pickups is equal to frequency of pickup times 26 weeks.

[4] Total number of annual pickups based on four pick-ups every two weeks for six months and six pick-ups every two weeks for six summer months.

Table A-8: FY99 Municipal Waste Pickups for NCI

Building	Dump # site[1]	Frequency[2]	Annual[3]
1021		10	260
1021	8yd	10	260
1021	3yd	10	260
1050		4	104
1052		6	156
1061		1	26
1066		1	26
1074		5	130
1075		10	260
244		4	104
313		6	156
321		2	52
324		2	52
325		2	52
347		3	78
350		5	130
361		10	260
376		6	156
426		4	104
429		10	260
431		1	26
432		5	130
535		4	104
538	E	5	130
538	W	5	130
539	dock	10	260
539	Foth	10	260
539	M1	2	52
539W		10	260
539W		10	260
549		10	260
550	L	1	26
550		6	156
560	R	8	208
560	1	4	104
560	2	4	104
560	3	4	104
567	1	10	260
567	2	10	260
571		5	130
Total		235	6110

[1] A blank cell indicates that only one dumpster is located at the building.

[2] Frequency is based on number of pickups every two weeks.

[3] Annual number of pickups is equal to frequency of pickup times 26 weeks.

Table A-9: Usage: Recycling Expenses by Tenant

Recycling Services Rate: $ 42.81

Organization	Strength as of 9/30/99	Total Cost	Percentage
USAG	901	$38,571.81	16.87%
USAMRMC	243	$10,402.83	4.55%
USAMISSA	114	$4,880.34	2.13%
USAMMA	190	$8,133.90	3.56%
STUDENT DET	8	$342.48	0.15%
6TMMMC	50	$2,140.50	0.94%
USAMMDA	50	$2,140.50	0.94%
USAMRAA	94	$4,024.14	1.76%
USAMRIID	565	$24,187.65	10.58%
520TH THEATER MED LAB	7	$299.67	0.13%
USACEHR	24	$1,027.44	0.45%
PEO STAMIS-MC4	10	$428.10	0.19%
JVAP	12	$513.72	0.22%
JRCAB	29	$1,241.49	0.54%
IMA BRAC OFC	5	$214.05	0.09%
FD ENG OFC	194	$8,305.14	3.63%
TAO	31	$1,327.11	0.58%
1108TH USA SIG BDE	72	$3,082.32	1.35%
1110TH USA SIG BN	293	$12,543.33	5.49%
DISA	9	$385.29	0.17%
SITE R TENANTS			
AFMLO	55	$2,354.55	1.03%
NMLC	97	$4,152.57	1.82%
JMLFDC	113	$4,837.53	2.12%
NSSCDFHPO	11	$470.91	0.21%
DEF PRINT SVC	1	$42.81	0.02%
AFMIC	83	$3,553.23	1.55%
DIA/AFMIC	10	$428.10	0.19%
WAR-MED PLAN SYS OFC	7	$299.67	0.13%
USA HEALTH CLINIC	35	$1,498.35	0.66%
USA DENTAL CLINIC	10	$428.10	0.19%
FD VET SECTION	2	$85.62	0.04%
SATCON	69	$2,953.89	1.29%
DLA/DCMAO	5	$214.05	0.09%
STRICOM	NA	NA	NA
DECA	30	$1,284.30	0.56%
AAFES	15	$642.15	0.28%
USMCR, CO B, 4TH LAR BN	14	$599.34	0.26%
301 SIG CO (FLAIR)	3	$128.43	0.06%
NCI-FCRDC	1848	$79,112.88	34.60%
USDA/ARS	30	$1,284.30	0.56%
SECRET SERVICE	2	$85.62	0.04%
Total	5,341.00	$228,648.21	

Appendix B
Continuing Education

This appendix contains detailed information on product costs and usage for Continuing Education. Tables B-1 through B-4 show cost elements for each product and how they were allocated across the product set. Tables B-5 and B-6 show usage data on which product rates were based and rate options for the Learning Resource Center.

Cost Allocation Model

- ◆ Table B-1. Product Cost Elements

- ◆ Table B-2. Allocation of Direct Labor

- ◆ Table B-3. Allocation of Supplies

- ◆ Table B-4. Allocation of Indirect Costs

Usage Data

- ◆ Table B-5. Determining Product Rates

- ◆ Table B-6. Options for Learning Resource Center

Table B-1: Product Cost Elements

Product	Direct labor	Supplies¹	Indirects²	Total³
Garrison dedicated support	98,124.00	-	25,889.20	124,013.20
Educational support (military only)	142,233.05	4,100.00	37,527.01	183,860.06
Site R support	53,265.00	31,600.00	14,053.53	98,918.53
Military-dedicated training classes	72,620.45	4,608.00	19,160.30	96,388.75
Satellite sessions	-	200.00	52.75	252.75
Non-military training classes	160,402.65	29,067.17	#REF!	231,778.22
Equivalency testing	30,007.25	-	7,914.82	37,922.07
MWR library	41,667.00	13,800.00	10,990.24	66,457.24
VTC sessions	-	-	-	-
Learning resource center	78,374.05	17,532.83	20,672.23	116,579.12
	676,693.45	100,908.00	#REF!	956,169.95

¹ DCTEE staff idenfied supply costs specific to each product.
² These figures do not include FY99 costs for certain operating expenses, including furniture, carpet cleaning, trash cans, light bulbs, moving, and storage.
³ These figures do not include approximately $62,000 incurred in FY99 for the foregoing expenses.
All costs are based on FY99 expenses.

Table B-2: Allocation of Direct Labor

DCTEE staff	FY99 $	Garrison Specific Support	Educational Counseling & Support	SiteR	Military Training	non-Military Training¹	Equivalency Testing	Library MWR	VTC sessions	Learning Resource Center	Satellite	Classroom Support	Indirect	Total
Program Manager	81,667.00												1.00	1
Advanced Tech Spc	56,351.00									0.30		0.10	0.60	1
Network Technician	54,300.00									0.30		0.50	0.20	1
Comp Sup Spc #1	14,850.00									0.75		0.15	0.10	1
Comp Sup Spc #2	30,000.00									0.75		0.15	0.10	1
Education Svc Spc	57,160.00		1.00											1
Education Counselor	25,000.00		1.00											1
Education Technician #1	39,471.00		0.30										0.70	1
Education Technician #2	32,213.00		0.75										0.25	1
Learning Resource Center Coordina	46,165.00				0.10		0.65			0.25				1
FAST Instructor	24,072.00		1.00											1
Education Svc Spc-SITER	53,265.00			1.00										1
Installation Training Coord	59,697.00				0.10	0.90								1
Training Assistant	42,082.00				0.10	0.90								1
Training NCO #1	29,316.00				1.00									1
Training NCO #2	24,823.00				0.75							0.25		1
Library Technician	41,667.00							1.00						1
Library Assistant	NA							1.00						1
Web Master	47,671.00	1.00												1
Instructional Systems Spec	65,952.00	0.25			0.15	0.35							0.25	1
Training Assistant #2	33,965.00	1.00												1
Library volunteer #1	NA							1.00						1
Library volunteer #2	NA							1.00						1
Library volunteer #3	NA							1.00						1
Total Costs		98,124.00	142,233.05	53,265.00	72,620.45	114,684.30	30,007.25	41,667.00	0	78,374.05	0	45,718.35	172,139.95	

¹ Total costs for non-military training equal the sum of this column and Classroom Support.

Table B-3: Allocation of Supplies

Direct Resources	Garrison Specific Support	Educational Counseling and Support	Site # R	Military Training[1]	non-Military Training[1]	Equivalency Testing	Library MWR	VTC sessions	Learning Resource Center	Satellite	Classroom Support	Indirect
Awards and training		2,700.00	900.00				300.00				100.00	
Head phones												
Computers									12,433.33		24,866.67	
Hard drives											900.00	6,400.00
Misc supplies			3,700.00								100.00	
CD ROMS/patch cables									499.50		1,000.50	
Telephone											100.00	
Software CDs												
Passwords				4,608.00					1,100.00			
Amplifier											100.00	
Test answer sheet		400.00										
FAST Instructor—C. Roberts		1,000.00										
Turner Vision—Mntce											300.00	
American Amplifier—Mntce											100.00	
Books—Contract							3,800.00					
Fed Link							5,900.00					
Magazines/newspapers							3,000.00					
Library Supplies + Misc Lib							800.00					
Verio—Comm ISP									3,500.00			
Peake Commun (realign satellite)										200.00		
Labor contracts			10,000.00									
2 screens and projectors			17,000.00									
Classroom materials					500.00						1,000.00	
Subtotal	0	4,100.00	31,600.00	4,608.00	500.00	-	13,800.00	-	17,532.83	200.00	28,567.17	6,400.00

[1] Total costs for non-military training equal the sum of this column and Classroom Support.

Table B-4: Allocation of Indirect Costs

	FY99 $	Garrison Specific Support	Educational Counseling and Support	SiteR	Military Training[1]	non-Military Training[1]	Equivalency Testing	Library MWR	VTC sessions	Learning Resource Center	Satellite	Classroom Support
Total direct costs	676,893.45	98,124.00	142,233.05	53,265.00	72,620.45	114,684.30	30,007.25	41,667.00	-	78,374.05	200	45718.35
Percentage of direct costs	100%	14%	21%	8%	11%	17%	4%	6%	0%	12%	0%	7%
Total indirect costs	178,539.95	25,881.55	37,515.92	14,049.38	19,154.64	30,249.56	7,914.82	10,990.24	-	20,672.23	52.75	12,058.84

[1] Total costs for non-military training equal the sum of this column and Classroom Support.

Table B-5: Determining Product Rates

Potentially Reimbursable	FY99 Actual Expenses	Basis for Allocation	Total usage	Rate	Rounded
Non-military training	231,778.22	Per participant per class	3,353.00	69.13	69.10
Equivalency testing	37,922.07	Per test-taker	1,038.00	36.53	36.50
MWR Library	66,457.24	Per capita (DoD population)	3,472.00	19.14	19.15
Learning Resource Center	116,579.12		Please see Table B-6		
VTC sessions		Actual communication cost	$.01 per minute per channel (off-peak); $.02 per minute per channel (peak); minimum two channels; long-distance charges apply.		

Note: FY99 Actual Expenses for VTC session communication costs not paid directly by DCTEE.

Table B-6: Options for Learning Resource Center

Total FY99 Cost: $116,579.12

Options for Reimbursement	Basis	Denominator	Source	Rate
Option 1	Per capita	5,341.00	FY99 strength minus Site R	21.83
Option 2	Per user	4,404.00	Actual FY99 usage	26.47
Option 3	Per hour	23,513.00	Estimate based on capacity. Assumes LRC is half full at all hours of operation.	4.96

Appendix C
Custodial Services

This appendix contains detailed information on product costs and usage for Custodial Services. Tables C-1 through C-3 show cost elements for each product and how they were allocated across the product set.

Cost Allocation Model

◆ Table C-1. Product Cost Elements

◆ Table C-2. Allocation of Direct Supervision

◆ Table C-3. Allocation of Indirect Costs

Table C-1: Product Cost Elements

Product	COR Labor	Contracts	Supplies	Facilities Engineering Indirect	Directorate Indirect	Total Cost of Service
Custodial Services	34,412.80	1,454,880.34	0.00	4,895.38	1,672.83	1,495,861.36

Table C-2: Allocation of Direct Supervision

Direct Oversight	FY99 Wages	Percentage	Total
COR Labor	43,016.00	80%	34,412.80

Table C-3: Allocation of Indirect Costs

Ken Rice Level

Areas of Supervision	Direct Labor[1]	Percentage	Total Cost[2]
Construction contracts	221,903.80	66%	14,261.25
Maintenance contracts	79,558.10	24%	5,113.02
Custodial contract	34,412.80	10%	2,211.63
Total	335,874.70		21,585.90

Department OH (DiMarco/Jadlowski)

Areas of Supervision	Direct Labor[1]	Percentage	Total Cost
Engineering support	404,009.40	51%	31,507.50
Construction COR	221,903.80	28%	17,305.62
Maintenance COR	79,558.10	10%	6,204.50
Custodial COR	34,412.80	4%	2,683.75
Other functions	51,642.20	7%	4,027.42
Total	791,526.30		61,728.80

Total Engineering Indirect - Custodial — 4,895.38

[1] For an allocation of direct labor resources, please see the Facilities Engineering section.
[2] Gray areas represent the portion of indirect costs allocated to Custodial Services from Facilities Engineering.

Appendix D
Facilities Engineering

This appendix contains detailed information on product costs and usage for Facilities Engineering. Table D-1 shows cost elements for each product and how they were allocated across the product set. Tables D-2 through D-4 show usage data on which product rates were based and implications for selected tenants.

Cost Allocation Model

◆ Table D-1. Product Cost Elements

Usage Data

◆ Table D-2. Estimating Garrison vs. Tenant Activity for Project Engineering Support

◆ Table D-3. Determining Product Rates

◆ Table D-4. Square Footage Allocation by Tenant

Table D-1: Product Cost Elements

Product	Labor	Contracts[1]	Facilities Engineering Indirect	Directorate Indirect	Total Cost	Total Cost w/o Contract
General engineering support	256,503.00		20,003.91	12,468.79	288,975.70	288,975.70
Direct engineering support—tenant	183,217.15		21,133.97	8,906.31	213,257.43	213,257.43
Direct engineering support—Garrison	186,193.05		21,936.50	9,050.97	217,180.52	217,180.52
Custodial contract	34,412.80	1,454,880.34	4,895.38	1,672.83	1,495,861.36	40,981.01
Maintenance contracts	79,558.10		11,317.52	3,867.37	94,742.99	94,742.99
Other functions	51,642.20		4,027.42	2,510.36	58,179.99	58,179.99
Total Cost	791,526.30	1,454,880.34	83,314.70	38,476.64	2,368,197.98	913,317.64

[1] Values of other contracts—particularly construction and maintenance contracts—were not available at time of study. Therefore, total product costs are understated.

Table D-2: Estimating Garrison vs. Tenant Activity for Project Engineering Support

FY99 Completed Projects (Direct Work)

Cost Basis	Project Costs	
Nonreimbursable	1,460,424.00	
Nonreimbursable	164,431.00	
Nonreimbursable	53,245.00	
Nonreimbursable	34,694.00	
Nonreimbursable	34,747.00	
Subtotal	1,747,541.00	48%
Reimbursable	797,260.00	
Reimbursable	312,073.00	
Reimbursable	354,948.00	
Reimbursable	352,067.00	
Reimbursable	31,424.00	
Reimbursable	28,076.00	
Subtotal	1,875,848.00	52%
Total	3,623,389.00	

Note: In FY99, Facilities Engineering closed 11 projects. Their total value was approximately $3.6 million. Of this, 48 percent represented supported garrison activity and was not reimbursable, 52 percent supported tenant acitivity. LMI used these percentages to allocate project engineering resources between garrison and tenant-dedicated support.

Table D-3: Determining Product Rates

Potentially Reimbursable	Annual Cost	Basis for Reimbursement	Usage	Rate
Direct engineering support—tenant	213,257.43	Project per tenant	NA	Actual cost
General engineering support	288,975.70	Per square foot	1,960,181	0.15

Table D-4: Square Footage Allocation by Tenant

Customer Name	Gross Square Feet	Expenses for General Engineering Support
1108TH	24345	3,589.01
1110TH SIGNAL	87038	12,831.40
1111TH	10032	1,478.95
A.C.S.	695	102.46
AFH 50-69	152190	22,436.30
AFH MGT O	642	94.65
AFH OTHER	105671	15,578.33
AFMIC	30000	4,422.69
AFMLO	15984	2,356.41
BARRICKS	184777	27,240.37
BLDG 1435	24345	3,589.01
BLDG-GRNDS	573589	84,560.19
BOQ-BEQ	12171	1,794.28
BOWLING	5412	797.85
BRAC	2000	294.85
CHAPLAIN	10305	1,519.19
CHILD CARE	11803	1,740.03
CIV PERS	11214	1,653.20
COMMANDER	10722	1,580.67
COMMISSARY	19861	2,927.97
COMPTROLLER	2447	360.74
DATA SYST	46720	6,887.60
DCASA	853	125.75
DCL	8208	1,210.05
DECON	24138	3,558.50
DENTAL	3029	446.54
DEPT/AGRIC	88456	13,040.45
DFAE	41449	6,110.53
DIO	4109	605.76
DMLLS	2490	367.08
DMSB	4428	652.79
DPCA	24242	3,573.83
DPTSEC	3662	539.86
DSE	8896	1,311.47
ECTC GEN	18763	2,766.10
EDUCATION CNTR	4701	693.04
FD CLUB	10449.1	1,540.44
FIRE DEPT	8387	1,236.44
FLAIR	15568	2,295.08
FORCE PROTECTIO	8225	1,212.55

Table D-4: Square Footage Allocation by Tenant (Continued)

Customer Name	Gross Square Feet	Expenses for General Engineering Support
HLTH CLIN	4834	712.64
JVAP		
LIBRARY	3823	563.60
MARINES	5408	797.26
MATMO	15475	2,281.37
MEDWARHOSP	2020	297.79
NAVAL HOSPITAL	3299	486.35
NAVEMEDMAT	38854	5,727.97
NAVMEDMAT	20955	3,089.25
POST EXCH	12695	1,871.53
PROVOST MARSHAL	6084	896.92
PURCHASING	17862	2,633.27
REC SVCS	25716.1	3,791.14
SAN SEWER	5677	836.92
SATCOM	15798	2,328.99
SECRET SVC	1012	149.19
SIGNAL		
SPORTS	9088	1,339.78
STM PLANT	14113	2,080.58
SUPPLY	16722	2,465.21
SWIM POOL	5826	858.89
TAO	7440	1,096.83
TMMMC	9663	1,424.55
TRANS DIV	12024	1,772.61
U&PC	55012	8,110.03
USAMBERDL	54478	8,031.31
USAMDA	25368	3,739.83
USAMMA	34811	5,131.94
USAMRDC	54385	8,017.60
USAMRIID	352484	51,964.24
USAR SPACE	15097	2,225.64
USASPACE	4503	663.85
VET CLINIC	751	110.71
WATER PLT	12233	1,803.43

Appendix E
Information Technology

This appendix contains detailed information on product costs and usage for Information Technology. Tables E-1 through E-8 show cost allocation models, usage data, and tenant implications for communications. Tables E-9 through E-13 show similar information for client services. Tables E-14 through E-15 provide information for applications.

COMMUNICATIONS

Cost Allocation Model

♦ Table E-1. Communications: Product Cost Elements

♦ Table E-2. Communications: Allocation of Indirect Costs

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CLIENT SERVICES

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Usage Data

APPLICATIONS

Cost Allocation Model

Table E-1: Communications: Product Cost Elements

Operations Total Costs	GS Labor	Contract Labor	Maintenance	Equipment and Supplies	Training and Travel	Overhead Noel	Overhead Ft. Detrick	Overhead Sam Houston	Total
Computer Services									
Enterprise	498,958.20	1,115,332.00	981,279.00	603,520.00	36,500.00	37,969.07	111,850.62	10,690.06	3,396,098.95
UNIX	346,777.00	965,092.00	975,095.00	550,320.00	26,900.00	27,559.21	90,896.52	8,687.38	2,991,327.12
NT	0.00	73,267.00	0.00	0.00	0.00	2,521.97	5,076.51	485.18	81,350.67
	152,181.20	76,973.00	6,184.00	53,200.00	9,600.00	7,887.88	15,877.59	1,517.49	323,421.16
Telecommunication—data	517,847.00	372,443.00	0.00	0.00	0.00	22,178.79	61,686.24	5,895.63	980,050.65
Telecommunication—telephone	153,738.00	325,000.00	0.00	100,000.00	9,955.00	11,926.26	33,170.70	3,170.27	636,960.22
Interactive services	370,064.66	53,043.34	10,300.00	69,500.00	40,662.00	9,372.52	29,316.22	2,801.88	585,060.63
VTC	110,000.00	154,487.23	0.00	0.00	0.00	2,200.37	10,704.08	1,023.04	278,414.72
Total cost—operations	1,650,607.86	2,020,305.58	991,579.00	773,020.00	87,117.00	83,647.01	246,727.86	23,580.87	5,876,585.17

Notes:

1. For government employees, labor costs are based on FY99 fully burdened wages, including overtime and awards. For contractual labor, we used FY99 rates to compute annual costs. Costs for full-time staff were based on 1920 hours; we used 960 hours for part-time staff.

2. Remaining costs for maintenance, equipment, supplies, travel, and training are based on estimates from IT operations manager.

Table E-2: Communications: Allocation of Indirect Costs

OH Costs—Noel Werking level	Labor total	Percentage of labor total	OH allocation
CS—Enterprise	1,311,869.00	37%	32,681.11
CS—UNIX	73,267.00	2%	1,825.22
CS—NT	229,154.20	6%	5,708.66
Telecommunications	890,290.00	25%	22,178.79
Telephone only	478,738.00	13%	11,926.26
Interactive services	423,108.00	12%	10,540.41
VTC	154,487.23	4%	3,848.57
Total	3,560,913.44	100%	88,709.00

OH Costs—USAMISSA Ft. Detrick Level	Labor total	Percentage of labor total	OH allocation
CS—Enterprise	1,311,869.37	37%	94,233.18
CS—UNIX	73,267.02	2%	5,262.86
CS—NT	229,154.26	6%	16,460.43
Telecommunications	890,290.25	25%	63,950.64
Telephone only	478,738.00	13%	34,388.34
Interactive services	423,108.12	12%	30,392.37
VTC	154,487.27	4%	11,097.01
Total	3,560,914.30	100%	255,784.84

OH Costs—USAMISSA Sam Houston	Labor total	Percentage of labor total	OH allocation
CS—Enterprise	1,311,869.74	37%	9,006.28
CS—UNIX	73,267.04	2%	502.99
CS—NT	229,154.33	6%	1,573.20
Telecommunications	890,290.50	25%	6,112.04
Telephone only	478,738.00	13%	3,286.64
Interactive services	423,108.24	12%	2,904.73
VTC	154,487.32	4%	1,060.59
Total	3,560,915.17	100%	24,446.48

Table E-4: Communications: Determining Product Rates

Product	Total	Basis for Reimbursement	Usage	Rate
Computer services—Enterprise	2,991,327.12	Per CPU second	31,536,000	0.09
Computer services—UNIX	81,350.67	Per user	2,508	32.44
Computer services—NT	323,421.16	Per user	895	361.36
Telecommunication services	1,617,010.87	Per capita	5,341	302.75
Data	980,050.65		5,341	183.50
Telephone	636,960.22		5,341	119.26
Interactive services	585,060.63	Per user	2,223	263.19
VTC	278,414.72	Per hour	9,208	30.24
Total cost—operations	5,876,585.17			

Table E-3: Communications: Determining Indirect Costs at USAMISSA

Operational area	Total Labor[1]	Percentage of Labor	USAMISSA—Fort Detrick	USAMISSA—Sam Houston
Applications	1,077,769.70	9%	73,325.75	7,008.06
Core Technologies[2]	5,482,258.16	46%	372,983.87	35,647.71
Ops	3,759,622.44	32%	255,784.84	24,446.48
Client Services[3]	1,484,451.60	13%	100,994.24	9,652.46
Total	11,804,101.90	100%	803,088.70	76,754.72

[1] Labor Costs include area managers and are based on FY99 fully burdened costs.

[2] This operational area was outside the study purview. Total labor costs equal the total FY99 USAMISSA costs for contract and direct labor ($13,040,500), less labor costs of the other operational areas, and less of the on-site USAMISSA administrative and management support.

[3] Labor costs include direct labor for Level 1, direct and supervisory costs for Levels 2 and 3, and manager costs.

USAMISSA—Fort Detrick

Government employees	FY99 Labor cost	Percentage of Time	Total cost	Role
Ron Long	90,520.00	100%	90,520.00	Program or Project Manager
Alexa Masser	66,013.00	2%	990.20	Program or Project Manager
Dana Coulby	56,060.68	100%	56,060.68	Internal Services
Pilar Lopez	33,553.00	100%	33,553.00	COR
Eileen Huggins	39,147.46	100%	39,147.46	Procurement
Peggy Kunka	60,829.00	100%	60,829.00	Organizational Effectiveness
Gary Rejonis	76,123.00	100%	76,123.00	Security
Pam Schaffert	42,384.00	100%	42,384.00	Administrative
Diana Hurley	33,702.07	100%	33,702.07	Administrative
Subtotal	498,332.21	NA	433,309.41	

Contract Employees

	FY99 Labor cost	Percentage of Time	Total Cost	Role
Kim Larsen	55,372.80	100%	55,372.80	Administrative
Vicky Lawson	41,977.19	100%	41,977.19	Administrative
Tom Harrison	151,361.06	100%	151,361.06	Procurement
John Boxell	121,068.24	100%	121,068.24	Program or Project Manager
Subtotal	369,779.29		369,779.29	
Total	868,111.50		803,088.70	

USAMISSA—Fort Sam Houston

	FY99 Labor cost	Percentage of Time	Total Cost	Role
Internal Services Director	71,140.00	20%	14,228.00	Internal Services
Troy COR Manager	78,158.40	80%	62,526.72	COR
Total	149,298.40		76,754.72	

Table E-5: Communications and Computer Services Costs by Tenant

Customer	Computer Services—UNIX			Computer Services—NT		
	No. of Users	Percentage of Users	Cost Allocation	No. of Users	% of Users	Cost Allocation
AFMIC		0%			0%	
AFMLO		0%			0%	
AJCC		0%			0%	
CEIS	888	35%	28,803.59		0%	
CPALOGR		0%			0%	
DCMAO		0%		5	1%	1,807
DFASSA		0%			0%	
JRCAB		0%			0%	
DODIG		0%			0%	
ECTC		0%			0%	
HCSCIA		0%			0%	
HQACC		0%			0%	
HQACC SG		0%			0%	
HQSCO		0%			0%	
HSLOPR		0%			0%	
IMABRAC		0%			0%	
JMFLDC		0%			0%	
JVAP		0%		18	2%	6,505
Warmed		0%		10	1%	3,614
MRMC						
NAVALMED		0%			0%	
NAVALSUP		0%			0%	
NCI		0%			0%	
NMIC		0%			0%	
OASDHA	1414	56%	45,865.17		0%	
OHMIS		0%			0%	
OTSGB		0%			0%	
PASBA		0%			0%	
SIGN1108		0%			0%	
SIGN1110		0%			0%	
SIGN1111		0%			0%	
TAOCECOM		0%			0%	
TECHANAL		0%			0%	
TMMMC		0%			0%	
TRANS		0%			0%	
USAG		0%		480	54%	173,455
USAISEC		0%			0%	
USACEHR		0%			0%	
USAMMA		0%			0%	
JMAR (USAMMA)	13	1%	421.67		0%	
USAMMCE		0%			0%	
USAMMDA		0%			0%	
USAMMEUR		0%			0%	
USAMISSA		0%		130	15%	46,977
USAMRAA		0%			0%	
USAMRAA(SAACONS)	193	8%	6,260.24		0%	
USAMRDC		0%		230	26%	83,114
USAMRIID		0%			0%	
USARDA		0%			0%	
USARSP		0%			0%	
USDAWEED		0%		22	2%	7,950
USMARINE		0%			0%	
MC4						
JAG						
Navy						
Primary Care						
DCTEE						
Other Users						
WRAIRLOG		0%			0%	
Total Users	2508	100%	81,350.67	895	100%	323,421

Note: Expenses for enterprise server were not computed because they are based on actual CPU usage, which varies each month.

Table E-6: Telecommunications Services Expenses by Tenant

Telecommunications Rate:

Data	183.50
Telephone	119.26

Organization	Strength[1]	Data Services	Telephone	Total	Percentage
USAG	901	165,329.65	107,452.01	272,781.65	16%
USAMRMC	243	44,589.46	28,979.84	73,569.30	4%
USAMISSA	114	20,918.51	13,595.48	34,513.99	2%
USAMMA	190	34,864.19	22,659.14	57,523.32	3%
STUDENT DET	8	1,467.97	954.07	2,422.03	0%
6TMMMC	50	9,174.79	5,962.93	15,137.72	1%
USAMMDA	50	9,174.79	5,962.93	15,137.72	1%
USAMRAA	94	17,248.60	11,210.31	28,458.91	2%
USAMRIID	565	103,675.08	67,381.11	171,056.20	10%
520TH THEATER MED LAB	7	1,284.47	834.81	2,119.28	0%
USACEHR	24	4,403.90	2,862.21	7,266.10	0%
PEO STAMIS-MC4	10	1,834.96	1,192.59	3,027.54	0%
JVAP	12	2,201.95	1,431.10	3,633.05	0%
JRCAB	29	5,321.38	3,458.50	8,779.88	1%
IMA BRAC OFC	5	917.48	596.29	1,513.77	0%
FD ENG OFC	194	35,598.17	23,136.17	58,734.34	3%
TAO	31	5,688.37	3,697.02	9,385.38	1%
1108TH USA SIG BDE	72	13,211.69	8,586.62	21,798.31	1%
1110TH USA SIG BN	293	53,764.25	34,942.77	88,707.02	5%
DISA	9	1,651.46	1,073.33	2,724.79	0%
SITE R TENANTS	426	78,169.18	50,804.17	128,973.34	7%
AFMLO	55	10,092.26	6,559.22	16,651.49	1%
NMLC	97	17,799.09	11,568.08	29,367.17	2%
JMLFDC	113	20,735.02	13,476.22	34,211.24	2%
NSSCDFHPO	11	2,018.45	1,311.84	3,330.30	0%
DEF PRINT SVC	1	183.50	119.26	302.75	0%
AFMIC	83	15,230.14	9,898.46	25,128.61	1%
DIA/AFMIC	10	1,834.96	1,192.59	3,027.54	0%
WAR-MED PLAN SYS OFC	7	1,284.47	834.81	2,119.28	0%
USA HEALTH CLINIC	35	6,422.35	4,174.05	10,596.40	1%
USA DENTAL CLINIC	10	1,834.96	1,192.59	3,027.54	0%
FD VET SECTION	2	366.99	238.52	605.51	0%
SATCON	69	12,661.20	8,228.84	20,890.05	1%
DLA/DCMAO	5	917.48	596.29	1,513.77	0%
STRICOM	NA	NA	NA	NA	NA
DECA	30	5,504.87	3,577.76	9,082.63	1%
AAFES	15	2,752.44	1,788.88	4,541.31	0%
USMCR, CO B, 4TH LAR BN	14	2,568.94	1,669.62	4,238.56	0%
301 SIG CO (FLAIR)	3	550.49	357.78	908.26	0%
NCI-FCRDC[1]	1848	339,100.09	220,389.91	559,490.00	32%
USDA/ARS	30	5,504.87	3,577.76	9,082.63	1%
SECRET SERVICE	2	366.99	238.52	605.51	0%
Total	5,767.00	1,058,219.83	687,764.39	1,745,984.22	

[1]As of 9/30/99. Data from USAMISSA confirm that NCI receives data transmission services from Fort Detrick. This analysis assumes that NCI also utilizes the trunk line for its telephone services.

Table E-7: Interactive Services

Customer	Number of Users	Exchange Percentage	Cost Allocation	No. of Users	DMS Percentage	Cost Allocation	Total Cost Allocation
AFMIC					0%		0.00
AFMLO	68	3%	17,896.59	2	0%	526.37	18,422.96
AJCC		0%			0%		0.00
CEIS		0%			0%		0.00
CPALOGR		0%			0%		0.00
DCMAO	5	0%	1,315.93		0%		1,315.93
DFASSA		0%			0%		0.00
JRCAB	29	1%	7,632.37	2	0%	526.37	8,158.74
DODIG		0%			0%		0.00
ECTC		0%			0%		0.00
HCSCIA		0%			0%		0.00
HQACC		0%			0%		0.00
HQACC SG		0%			0%		0.00
HQSCO		0%			0%		0.00
HSLOPR		0%			0%		0.00
IMABRAC		0%			0%		0.00
JMFLDC	4	0%	1,052.74		0%		1,052.74
JVAP	122	5%	32,108.59		0%		32,108.59
Warmed	18	1%	4,737.33		0%		4,737.33
MRMC					0%		0.00
NAVALMED	10	0%	2,631.85	2	0%	526.37	3,158.22
NAVALSUP		0%		1	0%	263.19	263.19
NCI		0%			0%		0.00
NMIC		0%			0%		0.00
OASDHA		0%			0%		0.00
OHMIS		0%			0%		0.00
OTSGB		0%			0%		0.00
PASBA		0%			0%		0.00
SIGN1108		0%		8	0%	2,105.48	2,105.48
SIGN1110		0%		14	1%	3,684.59	3,684.59
SIGN1111		0%			0%		0.00
TAOCECOM		0%		8	0%	2,105.48	2,105.48
TECHANAL		0%			0%		0.00
TMMMC	54	2%	14,212.00		0%		14,212.00
TRANS		0%			0%		0.00
USAG	480	22%	126,328.88	5	0%	1,315.93	127,644.81
USAISEC		0%		4	0%	1,052.74	1,052.74
USACEHR	31	1%	8,158.74	1	0%	263.19	8,421.93
USAMMA	212	10%	55,795.26	1	0%	263.19	56,058.44
JMAR (USAMMA)		0%			0%		0.00

Table E-7: Interactive Services (continued)

Customer	Number of Users	Exchange Percentage	Cost Allocation	No. of Users	DMS Percentage	Cost Allocation	Total Cost Allocation
USAMMCE		0%			0%		0.00
USAMMDA	43	2%	11,316.96		0%		11,316.96
USAMMEUR		0%			0%		0.00
USAMISSA	128	6%	33,687.70	15	1%	3,947.78	37,635.48
USAMRAA	97	4%	25,528.96		0%		25,528.96
USAMRAA(SAACONS)		0%			0%		0.00
USAMRDC	230	10%	60,532.59	2	0%	526.37	61,058.96
USAMRIID	560	25%	147,383.70	2	0%	526.37	147,910.07
USARDA		0%			0%		0.00
USARSP	42	2%	11,053.78	1	0%	263.19	11,316.96
USDAWEED	22	1%	5,790.07		0%		5,790.07
USMARINE		0%			0%		0.00
MC4							
JAG							
Navy							
Primary Care							
DCTEE							
Other Users		0%			0%		
WRAIRLOG							
Total Users	2,155	97%	567,164.04	68	3%	17,896.59	585,060.63

Table E-8: FY99 VTC Support Costs by Tenant

Customer	Scheduling Hours	Facilitation Hours	Level 2 & 3 VTC Hours	Total Hours	Cost Allocation
AFMIC				0	0.00
AFMLO	120	85	60	265	8,012.59
AJCC				0	0.00
CEIS				0	0.00
CPALOGR				0	0.00
DCMAO				0	0.00
DFASSA				0	0.00
JRCAB				0	0.00
DODIG				0	0.00
ECTC				0	0.00
HCSCIA				0	0.00
HQACC				0	0.00
HQACC SG				0	0.00
HQSCO				0	0.00
HSLOPR				0	0.00
IMABRAC				0	0.00
JMFLDC				0	0.00
JVAP	50	35	0	85	2,570.08
Warmed				0	0.00
MRMC	1,535	1,030	540	3,105	93,883.33
NAVALMED				0	0.00
NAVALSUP				0	0.00
NCI				0	0.00
NMIC				0	0.00
OASDHA				0	0.00
OHMIS				0	0.00
OTSGB				0	0.00
PASBA				0	0.00
SIGN1108	95	90	0	185	5,593.69
SIGN1110	10	8	0	18	544.25
SIGN1111				0	0.00
TAOCECOM				0	0.00
TECHANAL				0	0.00
TMMMC				0	0.00
TRANS				0	0.00
USAG	50	60	10	120	3,628.34
USAISEC				0	0.00
USACEHR				0	0.00
USAMMA	690	425	390	1,505	45,505.45
JMAR (USAMMA)				0	0.00

Table E-8: FY99 VTC Support Costs by Tenant (continued)

Customer	Scheduling Hours	Facilitation Hours	Level 2 & 3 VTC Hours	Total Hours	Cost Allocation
USAMMCE				0	0.00
USAMMDA				0	0.00
USAMMEUR				0	0.00
USAMISSA	180	160	410	750	22,677.13
USAMRAA	35	160	40	235	7,105.50
USAMRAA(SAACONS)				0	0.00
USAMRDC				0	0.00
USAMRIID	175	195	60	430	13,001.56
USARDA				0	0.00
USARSP				0	0.00
USDAWEED				0	0.00
USMARINE				0	0.00
MC4	235	190	60	485	14,664.55
JAG	70	80	0	150	4,535.43
Navy	400	200	150	750	22,677.13
Primary Care	120	130	80	330	9,977.94
DCTEE	355	245	120	720	21,770.05
Other Users	40	25	10	75	2,267.71
WRAIRLOG				0	0.00
Total Users	4,160	3,118	1,930	9,208	278,414.72

Table E-9: Client Services: Product Cost Elements

Product	Direct labor	Equipment/supplies	Indirect	Total
Level 1[1]	443,417.00	91,658.00	130,849.41	665,924.41
Levels 2&3	850,156.80	123,978.40	241,795.10	1,215,930.30
Total	1,293,573.80	215,636.40	372,644.50	1,881,854.70

[1] We allocated 10 percent of total costs for this product for internal USAMISSA support. This was based on the percentage of calls made by internal staff in FY99.

Table E-10: Client Services: Detailed Product Cost Elements

Product	Labor	Equipment/supplies	Support costs[1]	Supervision	OH—Don Volmer	OH—Ft Detrick	OH—San Antonio	Total[2]
Level 1	443,417.00	91,658.00	71,120.00	0.00	21,801.43	34,619.26	3,308.71	665,924.41
Levels 2&3	850,156.80	123,978.40	0.00	127,276.80	41,799.57	66,374.98	6,343.75	1,215,930.30
Total	1,293,573.80	215,636.40	71,120.00	127,276.80	63,601.00	100,994.24	9,652.46	1,881,854.70

[1] These charges include costs for software development, maintenance support, and research and development support.

[2] Based on FY99 costs.

Table E-11: Client Services: Allocation of Indirect Costs

Don Vollmer OH	Direct labor	Percentage	Total indirect
Level 1	443,417.00	34%	21,801.43
Levels 2 & 3	850,156.80	66%	41,799.57
Total[1]	1,293,573.80	100%	63,601.00

[1] Manager's total indirect costs are based on FY99 fully burdened wages.

Ft Detrick OH	Direct labor	Percentage	Total indirect
Level 1	443,417.00	34%	34,619.26
Level 2 & 3	850,156.80	66%	66,374.98
Total[1]	1,293,573.80	100%	100,994.24

[1] Total indirect cost for USAMISSA located on Fort Detrick. Refer to Table E-3.

San Antonio OH	Direct labor	Percentage	Total indirect
Level 1	443,417.00	34%	3,308.71
Level 2 & 3	850,156.80	66%	6,343.75
Total[1]	1,293,573.80	100%	9,652.46

[1] Total indirect cost for USAMISSA located at Fort Sam Houston. SeeTable E-3

Table E-12: Determining Product Rates, Client Services

Client Services	Total Annual Cost	Basis for Reimbursement	Usage	Rate
Level 1	599,331.96	Per tenant organization	Varies by tenant	Fixed annual fee
Levels 2 & 3	-	Per tenant organization	Varies by tenant	Actual cost

Note: Total costs for Level 1 support do not include approximately $62,800 for internal staff support.

Table E-13: Help Desk Costs by Tenant

Customer	FY99 Data on Users		FY99 Data On Call Volume			Calling Range:
	No. of Users	Percentage of Use	Number	Percentage	Annual Expense:	
AFMLO	60	2%	216	0%	216.00	Can double current use
ACTD	10	0%			0	
JVAP	19	1%			0	
1110th	35	1%			0	
JMLFDC	121	5%			0	
Exchange	28	1%			0	
USDA	22	1%			0	
Naval Med Supply Comm	12	0%			0	
Space Command	10	0%			0	
Garrison	534	21%	7930	1%	7,930.00	Can double current use
Site R DIS	30	1%			0	
MCMR-PLR	60	2%	310	0%	310.00	Can double current use
USAMMA	204	8%	2132	0%	2,132.00	Can double current use
USMRMC	214	8%	3640	1%	3,640.00	Can double current use
TMMMC	53	2%			0	
WARMED	10	0%			0	
SWSMIS Project	200	8%			0	
VISIO Project	45	2%			0	
HRA Project	150	6%			0	
AFESS Project	150	6%			0	
USAMISSA—San Antonio	315	12%			0	
USAMISSA—Fort Detrick	0	0%	1674	0%	1,674.00	Can double current use
Unassigned Users/Calls	225	9%	95	0%	95.00	Can double current use
USAMRIID	71	3%	442	0%	442.00	Can double current use
Other calls (enterprise—not local, PASBA)			190	0%	190.00	Can double current use
Total	2,578	100%	665,924	2%	16,629.00	
Cost per user	232.48					
Cost per call	1.00					

Table E-14: Applications: Allocation of Direct Labor

Project / Support	Business Area	Customer	Source of funding	Funding Received	Overhead Cost	Cost of Project	Delta	Resources by Last Name, First	Percentage of Time Spent on Project	Percentage	Remarks	GS / MIL / CONT	MOS / Series
AIRS	Resource/ Logistics	Ft. Detrick/ Site R	USAG					Bowers, Beverly	50%	0.50	SW Maint & customer support	GS	334
AIRS			USAG					Davis, Doug	57%	0.57	SW Maint & customer support	GS	334
AIRS			USAG					Slane, Jennifer	38%	0.38	SW Maint & customer support	Cont	
AIRS			USAG					Kendle, Dave	10%	0.10	SW Maint & customer support	GS	334
AIRS			MRMC	41K - FY99 only for Y2K				Brands, Al	100%	1.00	Database maintenance	Cont	
AFMIS	Resource	Garrison & Site R	USAG					Dorsey, Glenn	20%	0.20	Maint & customer support	GS	334
ABS	Resource	USAMISSA/ USAMRIID/ JVAP	USAMRIID					Bowers, Beverly	10%	0.10	SW Maint & customer support	GS	334
ABS		USAMISSA/ USAMRIID	USAG					Davis, Doug	10%	0.10	SW Maint & customer support	GS	334
ABS		USAMISSA	USAG					Slane, Jennifer	10%	0.10	SW Maint & customer support	Cont	
AIRS Interface Support with SBIS/ISM Systems	Resource/ Logistics	Ft. Detrick - Post wide	USAG					Bowers, Beverly	25%	0.25	SW Maint & customer support	GS	334
AIRS Interface Support with SBIS/ISM Systems			USAG					Davis, Doug	10%	0.10	SW Maint & customer support	GS	334
AIRS Interface Support with SBIS/ISM Systems			USAG					Kendle, Dave	20%	0.20	SW Maint & customer support	GS	334
AIRS/WRAIR Interface Support			USAG					Bowers, Beverly	2%	0.02	SW Maint & customer support	GS	334
AIRS/WRAIR Interface Support			USAG					Davis, Doug	5%	0.05	SW Maint & customer support	GS	334
AIRS/WRAIR Interface Support			USAG					Davis, Doug	5%	0.05	SW Maint & customer support	GS	334
AIRS/DCAS Interface Support			USAG					Slane, Jennifer	15%	0.15	SW Maint & customer support	Cont	
AIS	Resource	MRMC	USAG					Wildasin, Pam	5%	0.05	SW Maint & customer support	GS	334
AJCC - VASS	Resource	Site R	Site-R					Dormer, Brian	85%	0.85	SW Maint & customer support	Cont	
AJCC - VASS			Site-R					Nagle, Keith	70%	0.70	SW Maint & customer support	Cont	
ALB	Logistics	Ft. Detrick - Post wide	USAG					Giallonardo, Frank	20%	0.20	SW Maint & customer support	GS	334
ALORES	Resource/ Logistics	USAMRIID	USAG					Bowers, Beverly	10%	0.10	SW Maint & customer support	GS	334
ALORES			USAMRIID					Slane, Jennifer	5%	0.05	SW Maint & customer support	Cont	
ALORES			USAG					Davis, Doug	10%	0.10	SW Maint & customer support	GS	334
ALORES/AIRS Interface	Resource/ Logistics	USAMRIID	USAG					Davis, Doug	2%	0.02	SW Maint & customer support	GS	334
ALORES/ABS Interface	Resource/ logistics	USAMRIID	USAG					Bowers, Beverly	3%	0.03	SW Maint & customer support	GS	334
ALORES/ABS Interface			USAG					Davis, Doug	5%	0.05	SW Maint & customer support	GS	334
ALORES/ABS Interface			USAMRIID					Slane, Jennifer	30%	0.30	SW Maint & customer support	Cont	
AMEDD Personnel System	Admin	AMEDD	AMEDD					Harris, Walter	63%	0.63	SW Maint & customer support	Cont	
AMEDDPAS - USAG	Logistics	USAG	USAG					Kendle, Dave	15%	0.15	Customer support	GS	334
Aquatic Biomonitoring Program	Clinical	USACEHR	USACEHR					Leach, Jeff	100%	1.00	SW Maint & customer support	GS	334
CAS	Resource	MRMC	MRMC					Wildasin, Pam	23%	0.23	SW Maint & customer support	GS	334
CAS		MRMC	MRMC					Ott, Mike	5%	0.05	SW Maint & customer support	GS	334
CAS		MRMC	MRMC					Holley, Fred	5%	0.05	SW Maint & customer support	GS	334
CINFARS	Resource	MRMC	USAG					Dorsey, Glenn	7%	0.07	SW Maint & customer support	GS	334
CINFARS - Bridge	Resource	MRMC	USAG					Dorsey, Glenn	2%	0.02	SW Maint & customer support	GS	334
CIRS	Clinical	MRMC	USAG					Giallonardo, Frank	5%	0.05	SW Maint & customer support	GS	334
DAS	Resource	MRMC	MRMC					Wildasin, Pam	10%	0.10	SW Maint & customer support	GS	334
DAS		MRMC	MRMC					Ott, Mike	5%	0.05	SW Maint & customer support	GS	334
DCPS OTSG Denver	Resource	OTSG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334
DCPS Pennisicola	Resource	USAG	USAG					Dorsey, Glenn	2%	0.02	Customer support	GS	334
DCPS Charleston	Resource	USAG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334
DCPS USAG	Resource	USAG	USAG					Dorsey, Glenn	8%	0.08	Customer support	GS	334
DCPS USAMMA	Resource	USAG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334
DENTRAD	Clinical	USAG	USAG					Giallonardo, Frank	5%	0.05	Customer support	GS	334
DENTAC	Clinical	USAG	USAG					Nagle, Keith	2%	0.02	SW Maint & customer support	Cont	334
DFAS Indianapolis	Resource	USAG	USAG					Dorsey, Glenn	10%	0.10	Customer support	GS	334
DFAS Rome	Resource	USAG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334

Project / Support	Business Area	Customer	Source of funding	Funding Received	Overhead Cost	Cost of Project	Delta	Resources by Last Name, First	Percentage of Time Spent on Project	Percentage	Remarks	GS / MIL / CONT	MOS / Series
ERMS	Resource	MRMC	MRMC					Wildasin, Pam	15%	0.15	SW Maint & customer support	GS	334
ERMS			MRMC					Ott, Mike	10%	0.10	SW Maint & customer support	GS	334
FAS	Resource	USAG	USAG					Davis, Doug	20%	0.20	SW Maint & customer support	GS	334
HAZMIRS Plus	Logistics	USAG	USAG					Giallonardo, Frank	14%	0.14	SW Maint & customer support	GS	334
HIS	Resource	USAG	USAG					Holley, Fred	10%	0.10	SW Maint & customer support	GS	334
HURO	Resource	MRMC	MRMC					Wildasin, Pam	5%	0.05	SW Maint & customer support	GS	334
HURO			MRMC					Ott, Mike	5%	0.05	SW Maint & customer support	GS	334
IFS-M	Resource	USAG	USAG					Holley, Fred	41%	0.41	Customer support	GS	334
IFS-M	Logistics	USAG	USAG					Holley, Fred	15%	0.15	Customer support	GS	334
Inventory Tracking	Logistics	USAG	USAG					Harris, Walter	5%	0.05	SW Maint & customer support	Cont	
Inventory Tracking		USAMRAA	USAG					Harris, Walter	2%	0.02	SW Maint & customer support	Cont	
JOURNAL	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
JOURNAL		MRMC	MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
LEAVE	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
LEAVE		MRMC	MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
LENDING CLOSET	Logistics	USAG	USAG					Dormer, Brian	5%	0.05	SW Maint & customer support	Cont	
LENDING CLOSET		USAG	USAG					Nagle, Keith	5%	0.05	SW Maint & customer support	Cont	
MAILLOG	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
MAILLOG		MRMC	MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
Mgmt of Civ Budget	Resource	USAG	USAG					Giallonardo, Frank	24%	0.24	SW Maint & customer support	GS	334
Mgmt of Civ Budget		USAG	USAG					Slane, Jennifer	2%	0.02	SW Maint & customer support	Cont	
MANAS	Resource	USACEHR	USACEHR					Dormer, Brian	5%	0.05	SW Maint & customer support	Cont	
MANAS		USACEHR	USACEHR					Nagle, Keith	20%	0.20	SW Maint & customer support	Cont	
MIDI	Logistics	CHPPM	CHPPM					Dormer, Brian	5%	0.05	SW Maint & customer support	Cont	
MIDI		CHPPM	CHPPM					Nagle, Keith	3%	0.03	SW Maint & customer support	Cont	
MILPO	Resource	USAG	USAG					Holley, Fred	2%	0.02	Customer support	GS	334
NAF	Resource	USAG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334
PCE	Resource	USAG	USAG					Giallonardo, Frank	2%	0.02	SW Maint & customer support	GS	334
PD - Personnel DB	Admin	USAG/RIID	MRMC					Harris, Walter	25%	0.25	SW Maint & customer support	Cont	
PERTDA	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
PERTDA		MRMC	MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
PLANVIEW	Resource	USAMISSA	USAG					Holley, Fred	25%	0.25	SW Maint & customer support	GS	334
PM	Logistics	DIS	USAG					Dorsey, Glenn	10%	0.10	SW Maint & customer support	GS	334
PRTAS	Resource/Logistics	MRMC	MRMC					Wildasin, Pam	10%	0.10	SW Maint & customer support	GS	334
PRTAS	Resource/Logistics		MRMC					Ott, Mike	63%	0.63	SW Maint & customer support	GS	334
PSS	Logistics	USAG	USAG					Giallonardo, Frank	1%	0.01	SW Maint & customer support	GS	334
PTD	Logistics	USAG	USAG					Holley, Fred	7%	0.07	SW Maint & customer support	GS	334
PTS	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
PTS		MRMC	MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
OAD	Logistics	USAG	USAG					Giallonardo, Frank	1%	0.01	SW Maint & customer support	GS	334
RIMS	Resource	MRMC	USAG					Bowers, Beverly	2%	0.02	System & Customer support	GS	334
RIMS		MRMC	MRMC					Wildasin, Pam	10%	0.10	SW Maint & customer support	GS	334
RIMS			USAG					Holley, Fred	6%	0.06	SW Maint & customer support	GS	334
RIMS			UASG					Kendle, Dave	10%	0.10	SW Maint & customer support	GS	334
RIMS			USAG					Giallonardo, Frank	5%	0.05	SW Maint & customer support	GS	334
SAACONS	Logistics	USAMRAA	USAG					Bowers, Beverly	5%	0.05	Customer support	GS	334
SAACONS	Logistics	USAG	USAG					Davis, Doug	1%	0.01	Customer support	GS	334
SAACONS Archiving	Logistics	USAG	USAG					Davis, Doug	1%	0.01	Customer support	GS	334
SAACONS Maint	Logistics	USAG	USAG					Davis, Doug	1%	0.01	Customer support	GS	334
SIDPERS	Resource	USAG	USAG					Dorsey, Glenn	2%	0.02	Customer support	GS	334
	Logistics	Ft. Detrick/ Site R/ WRAIR						Bowers, Beverly	7%	0.07	SW Maint & customer support	GS	334
SPS/AIRS Interface		USAG	USAG					Davis, Doug	10%	0.10	SW Maint & customer support	GS	334
SPS/AIRS Interface		USAG	USAG					Dorsey, Glenn	17%	0.17	Customer support	GS	334
STANFINS	Resource	USAG	USAG					Dorsey, Glenn	2%	0.02	Customer support	GS	334
STANFINS STO	Resource	MRMC	MRMC					Kendle, Dave	5%	0.05	Customer support	GS	334
STARFIARS-MOD-R	Resource	USAMMA	USAMMA					Kendle, Dave	5%	0.05	Customer support	GS	334
STARFIARS-MOD-W	Resource	USAG	USAG					Kendle, Dave	5%	0.05	Customer support	GS	334

Project / Support	Business Area	Customer	Source of funding	Funding Received	Overhead Cost	Cost of Project	Delta	Resources by Last Name, First	Percentage of Time Spent on Project	Percentage	Remarks	GS / MIL / CONT	MOS / Series
SWISMIS	Logistics	MEDCOM	USAG					Giallonardo, Frank	5%	0.05	Customer support	GS	334
TDA	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
TDA			MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
Telephone Billing Sys			USAG					Dorsey, Glenn	10%	0.10	SW Maint & customer support	GS	334
Time Acctg Sys	Resource	USAG	USAMRAA					Harris, Walter	5%	0.05	SW Maint & customer support	Cont	334
TRANSPROC-IN	Resource	USAMRAA	USAG					Holley, Fred	1%	0.01	Customer support	GS	334
TRANSPROC-OUT	Resource	USAG	USAG					Holley, Fred	1%	0.01	Customer support	GS	334
TRAVEL	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
TRAVEL	Resource	MRMC	MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
TRAVEL			USAG					Holley, Fred	1%	0.01	SW Maint & customer support	GS	334
UKS	Resource	USAG	USAG					Holley, Fred	5%	0.05	SW Maint & customer support	GS	334
USAG Security Sys	Resource	USAG	MRMC					Wildasin, Pam	15%	0.15	SW Maint & customer support	GS	334
VAX Migration	Resource	MRMC	USAG					Giallonardo, Frank	2%	0.02	SW Maint & customer support	GS	334
VIS	Logistics	USAG	MRMC					Wildasin, Pam	5%	0.05	SW Maint & customer support	GS	334
WUIS	Resource	MRMC	MRMC					Ott, Mike	5%	0.05	SW Maint & customer support	GS	334
WUIS													
Y2K	Resource/ Logistics	USAG	USAG					Bowers, Beverly	5%	0.05	Customer support	GS	334
DFAS End of Year Support - Comp Time	Resource	Ft. Detrick	USAG					Bowers, Beverly	2%	0.02	Customer support	GS	334
DFAS End of Year Support - Comp Time			USAG					Davis, Doug	2%	0.02	Customer support	GS	334
DFAS End of Year Support - Overtime	Resource	Ft. Detrick	USAG					Dorsey, Glenn	3%	0.03	Customer support	GS	334
DFAS End of Year Support - Overtime			USAG					Kendle, Dave	4%	0.04	Customer support	GS	334
DFAS End of Year Support - Overtime			USAMRIID					Wildasin, Pam	5%	0.05	Customer support	GS	334
USAMRIID Apps.													
Agreement Management System		USAMRIID	USAMRIID					Angleberger, Dale	3%	0.03	Maintenance	GS	334
Agreement Management System		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	
Animal Inventory System		USAMRIID	USAMRIID					Angleberger, Dale	4%	0.04	System Development	GS	334
AR Ordering System		USAMRIID	USAMRIID					McQuiston, Skip	10%	0.10	Maintenance	Cont	
AR Ordering System Phase II Upgrade		USAMRIID	USAMRIID					McQuiston, Skip	14%	0.14	System Development	Cont	
Budget Reimbursement System		USAMRIID	USAMRIID					McQuiston, Skip	8%	0.08	Maintenance	Cont	
Cell Culture Ordering System		USAMRIID	USAMRIID					McQuiston, Skip	5%	0.05	Maintenance and Verification of F	Cont	
Chargeback System		USAMRIID	USAMRIID					Angleberger, Dale	3%	0.03	Maintenance	GS	334
Clinlab System		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Integration with New 3rd party Lab	GS	334
Contract Management System		USAMRIID	USAMRIID					Angleberger, Dale	3%	0.03	Maintenance	GS	334
Contract Management System		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	
Cost Analysis for New Applications		USAMRIID	USAMRIID					Angleberger, Dale	15%	0.15	Analysis based on incoming CAP	GS	334
Drug Accountability System		USAMRIID	USAMRIID					McQuiston, Skip	7%	0.07	System Development	Cont	
Engineering ISR		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	System Upgrade for multi-platform	GS	334
Event Reimbursement System		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Integration with Screening Data fr	GS	334
FY96-17, Anthrax		USAMRIID	USAMRIID					Angleberger, Dale	2%	0.02	Maintenance, Data Mining, Secur	GS	334
FY97-0, MIP		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY97-02, Campylobactor		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY97-04, Malaria		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY97-07, Shigella		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY98-01, ETEC		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY98-08, Campylobactor		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY99-18, DNA		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY99-29, Campylobactor		USAMRIID	USAMRIID					McQuiston, Skip	10%	0.10	System Development	Cont	
Hybridoma Storage Query System		USAMRIID	USAMRIID					Angleberger, Dale	4%	0.04	Maintenance and Verification of F	GS	334
Intranet Web Master		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Liason between USAMRIID and L	GS	334
Library Database Management System		USAMRIID	USAMRIID					Angleberger, Dale	3%	0.03	Maintenance	GS	334
Library Database Management System		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	
Manpower System		USAMRIID	USAMRIID					McQuiston, Skip	10%	0.10	Monthly Uploads and Scheduled	Cont	
Network Applications System		USAMRIID	USAMRIID					Angleberger, Dale	4%	0.04	Maintenance and coordination wit	GS	334
Phone Listing System		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Maintenance and Upgrade to incl	GS	334
Phone Listing System		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	

Project / Support	Business Area	Customer	Source of funding	Funding Received	Overhead Cost	Cost of Project	Delta	Resources by Last Name, First	Percentage of Time Spent on Project	Percentage	Remarks	GS / MIL / CONT	MOS / Series
Property Book System		USAMRIID	USAMRIID					Angleberger, Dale	6%	0.06	Conversion to Web System	GS	334
Protocol Followup System		USAMRIID	USAMRIID					McQuiston, Skip	5%	0.05	Maintenance	Cont	
Protocol Followup System Phase II Upgrade		USAMRIID	USAMRIID					McQuiston, Skip	15%	0.15	System Development	Cont	
Protocol Status Mailer		USAMRIID	USAMRIID					Angleberger, Dale	3%	0.03	Weekly Maintenance and mailing	GS	334
Research Automation Committee		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	USAMISSA representative	GS	334
Research Regulatory File Database		USAMRIID	USAMRIID					Angleberger, Dale	6%	0.06	System Development	GS	334
Shot & Bleed Management System		USAMRIID	USAMRIID					Angleberger, Dale	4%	0.04	Maintenance and upgrade to inclu	GS	334
Vet Med Training Database		USAMRIID	USAMRIID					Angleberger, Dale	2%	0.02	Maintenance	GS	334
Vet Med Training Database		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	
Windows Applications Support		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Institute resource for end-user de	GS	334
Windows Applications Support		USAMRIID	USAMRIID					McQuiston, Skip	4%	0.04	Institute resource for end-user de	Cont	
Other Non/Project													
Supervisor Duties		USAMISSA	USAG					Bowers, Beverly	20%			GS	334
Annual Supplies - Application Br.		USAG	USAG					(Apps. Employees)			~ $3,000.00		
FY99 Performance Awards (Yearly Appraisals)		USAMISSA	USAG					(Apps. Employees)			~ $6,000.00		
Unfunded Annual Requirements													
Annual PC Software Development Languages/Tools upgrades	USAG							(Apps. Employees)			~$5,000.00		
Annual Software Development Technical Conferences	USAG							(Apps. Employees)			~$15,000.00		
Software/Hardware Development Platforms Upgrades (3 year dep	USAG							(Apps. Employees)			annual cost ~ $12,500.00		
Apps. Printers Replacement (5 year depreciation value)	USAG							(Apps. Employees)			annual cost ~ $1,000.00		

Table E-14: Applications: Allocation of Direct Labor

Project / Support	Business Area	Customer	Source of funding	Funding Received	Overhead Cost	Cost of Project	Delta	Resources by Last Name, First	Percentage of Time Spent on Project	Percentage	Remarks	GS / MIL / CONT	MOS / Series
AIRS	Resource/Logistics	Ft. Detrick/Site R	USAG					Bowers, Beverly	50%	0.50	SW Maint & customer support	GS	334
AIRS			USAG					Davis, Doug	57%	0.57	SW Maint & customer support	GS	334
AIRS			USAG					Slane, Jennifer	38%	0.38	SW Maint & customer support	Cont	334
AIRS			USAG					Kendle, Dave	10%	0.10	SW Maint & customer support	GS	334
AIRS			MRMC	41K - FY99 only for Y2K				Brands, Al	100%	1.00	Database maintenance	Cont	
AFMIS	Resource	Garrison & Site R	USAG					Dorsey, Glenn	20%	0.20	Maint & customer support	GS	334
ABS	Resource	USAMISSA/USAMRIID/JVAP	USAMRIID					Bowers, Beverly	10%	0.10	SW Maint & customer support	GS	334
ABS		USAMISSA/USAMRIID	USAG					Davis, Doug	10%	0.10	SW Maint & customer support	GS	334
ABS		USAMISSA	USAG					Slane, Jennifer	10%	0.10	SW Maint & customer support	Cont	334
AIRS Interface Support with SBIS/ISM Systems	Resource/Logistics	Ft. Detrick - Post wide	USAG					Bowers, Beverly	25%	0.25	SW Maint & customer support	GS	334
AIRS Interface Support with SBIS/ISM Systems	Logistics	Post wide	USAG					Davis, Doug	10%	0.10	SW Maint & customer support	GS	334
AIRS Interface Support with SBIS/ISM Systems			USAG					Kendle, Dave	20%	0.20	SW Maint & customer support	GS	334
AIRS/WRAIR Interface Support			USAG					Bowers, Beverly	2%	0.02	SW Maint & customer support	GS	334
AIRS/WRAIR Interface Support			USAG					Davis, Doug	5%	0.05	SW Maint & customer support	GS	334
AIRS/DCAS Interface Support			USAG					Slane, Jennifer	15%	0.15	SW Maint & customer support	Cont	334
AIS	Resource	MRMC	USAG					Wildasin, Pam	5%	0.05	SW Maint & customer support	GS	334
AJCC - VASS	Resource	Site R	Site-R					Dormer, Brian	85%	0.85	SW Maint & customer support	Cont	
AJCC - VASS			Site-R					Nagle, Keith	70%	0.70	SW Maint & customer support	Cont	
ALB	Logistics	Ft. Detrick - Post wide	USAG					Giallonardo, Frank	20%	0.20	SW Maint & customer support	GS	334
ALORES	Resource/Logistics	USAMRIID	USAG					Bowers, Beverly	10%	0.10	SW Maint & customer support	GS	334
ALORES			USAMRIID					Slane, Jennifer	5%	0.05	SW Maint & customer support	Cont	334
ALORES		USAMRIID	USAG					Davis, Doug	10%	0.10	SW Maint & customer support	GS	334
ALORES/AIRS Interface	Resource/Logistics	USAMRIID	USAG					Davis, Doug	2%	0.02	SW Maint & customer support	GS	334
ALORES/ABS Interface	Resource/logistics	USAMRIID	USAG					Bowers, Beverly	3%	0.03	SW Maint & customer support	GS	334
ALORES/ABS Interface			USAG					Davis, Doug	5%	0.05	SW Maint & customer support	GS	334
ALORES/ABS Interface			USAMRIID					Slane, Jennifer	30%	0.30	SW Maint & customer support	Cont	
AMEDD Personnel System	Admin	AMEDD	AMEDD					Harris, Walter	63%	0.63	SW Maint & customer support	Cont	
AMEDDPAS - USAG	Logistics	USAG	USAG					Kendle, Dave	15%	0.15	Customer support	GS	334
Aquatic Biomonitoring Program	Clinical	USACEHR	USACEHR					Leach, Jeff	100%	1.00	SW Maint & customer support	GS	334
CAS	Resource	MRMC	MRMC					Wildasin, Pam	23%	0.23	SW Maint & customer support	GS	334
CAS		MRMC	MRMC					Ott, Mike	5%	0.05	SW Maint & customer support	GS	334
CAS		MRMC	MRMC					Holley, Fred	5%	0.05	SW Maint & customer support	GS	334
CINFARS	Resource	MRMC	USAG					Dorsey, Glenn	7%	0.07	SW Maint & customer support	GS	334
CINFARS - Bridge	Resource	MRMC	USAG					Dorsey, Glenn	2%	0.02	SW Maint & customer support	GS	334
CIRS	Clinical	MRMC	USAG					Giallonardo, Frank	5%	0.05	SW Maint & customer support	Cont	
DAS	Resource	MRMC	MRMC					Wildasin, Pam	10%	0.10	SW Maint & customer support	GS	334
DAS		MRMC	MRMC					Ott, Mike	5%	0.05	SW Maint & customer support	GS	334
DCPS OTSG Denver	Resource	OTSG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334
DCPS Pennisicola	Resource	USAG	USAG					Dorsey, Glenn	2%	0.02	Customer support	GS	334
DCPS Charleston	Resource	USAG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334
DCPS USAG	Resource	USAG	USAG					Dorsey, Glenn	8%	0.08	Customer support	GS	334
DCPS USAMMA	Resource	USAG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334
DENTRAD	Clinical	USAG	USAG					Giallonardo, Frank	5%	0.05	Customer support	GS	334
DENTAC	Clinical	USAG	USAG					Nagle, Keith	2%	0.02	SW Maint & customer support	Cont	
DFAS Indianapolis	Resource	USAG	USAG					Dorsey, Glenn	10%	0.10	Customer support	GS	334
DFAS Rome	Resource	USAG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334

Project / Support	Business Area	Customer	Source of funding	Funding Received	Overhead Cost	Cost of Project	Delta	Resources by Last Name, First	Percentage of Time Spent on Project	Percentage	Remarks	GS / MIL / CONT	MOS / Series
ERMS	Resource	MRMC	MRMC					Wildasin, Pam	15%	0.15	SW Maint & customer support	GS	334
ERMS			MRMC					Ott, Mike	10%	0.10	SW Maint & customer support	GS	334
FAS	Resource	USAG	USAG					Davis, Doug	20%	0.20	SW Maint & customer support	GS	334
HAZMIRS Plus	Logistics	USAG	USAG					Giallonardo, Frank	14%	0.14	SW Maint & customer support	GS	334
HIS	Resource	USAG	USAG					Holley, Fred	10%	0.10	SW Maint & customer support	GS	334
HURO	Resource	MRMC	MRMC					Wildasin, Pam	5%	0.05	SW Maint & customer support	GS	334
HURO			MRMC					Ott, Mike	5%	0.05	SW Maint & customer support	GS	334
IFS-M	Resource	USAG	USAG					Holley, Fred	41%	0.41	Customer support	GS	334
IFS-M Supply	Logistics	USAG	USAG					Holley, Fred	15%	0.15	Customer support	GS	334
Inventory Tracking	Logistics	USAG	USAG					Harris, Walter	5%	0.05	SW Maint & customer support	Cont	
Inventory Tracking		USAMRAA	USAMRAA					Harris, Walter	2%	0.02	SW Maint & customer support	Cont	
JOURNAL	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
JOURNAL			MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
LEAVE	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
LEAVE			MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
LENDING CLOSET	Logistics	USAG	USAG					Dormer, Brian	5%	0.05	SW Maint & customer support	Cont	
LENDING CLOSET			USAG					Nagle, Keith	5%	0.05	SW Maint & customer support	Cont	
MAILLOG	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
MAILLOG			MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
Mgmt of Civ Budget	Resource	USAG	USAG					Giallonardo, Frank	24%	0.24	SW Maint & customer support	GS	334
Mgmt of Civ Budget			USAG					Slane, Jennifer	2%	0.02	SW Maint & customer support	Cont	
MANAS	Resource	USACEHR	USACEHR					Dormer, Brian	5%	0.05	SW Maint & customer support	Cont	
MANAS			USACEHR					Nagle, Keith	20%	0.20	SW Maint & customer support	Cont	
MIDI	Logistics	CHPPM	CHPPM					Dormer, Brian	5%	0.05	SW Maint & customer support	Cont	
MIDI			CHPPM					Nagle, Keith	3%	0.03	SW Maint & customer support	Cont	
MILPO	Resource	USAG	USAG					Holley, Fred	2%	0.02	Customer support	GS	334
NAF	Resource	USAG	USAG					Dorsey, Glenn	1%	0.01	Customer support	GS	334
PCE	Resource	USAG	USAG					Giallonardo, Frank	2%	0.02	SW Maint & customer support	GS	334
PD - Personnel DB	Admin	USAG/RIID	USAG					Harris, Walter	25%	0.25	SW Maint & customer support	Cont	
PERTDA	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
PERTDA			MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
PLANVIEW	Resource	USAMISSA	USAG					Holley, Fred	25%	0.25	SW Maint & customer support	GS	334
PM	Logistics	DIS	USAG					Dorsey, Glenn	10%	0.10	SW Maint & customer support	GS	334
PRTAS	Resource/Logistics	MRMC	MRMC					Wildasin, Pam	10%	0.10	SW Maint & customer support	GS	334
PRTAS	Resource/Logistics		MRMC					Ott, Mike	63%	0.63	SW Maint & customer support	GS	334
PSS	Logistics	USAG	USAG					Giallonardo, Frank	1%	0.01	SW Maint & customer support	GS	334
PTD	Resource	USAG	USAG					Holley, Fred	7%	0.07	SW Maint & customer support	GS	334
PTS	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
PTS			MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
QAD	Logistics	USAG	USAG					Giallonardo, Frank	1%	0.01	SW Maint & customer support	GS	334
RIMS	Resource	MRMC	MRMC					Bowers, Beverly	2%	0.02	System & Customer support	GS	334
RIMS			MRMC					Wildasin, Pam	10%	0.10	SW Maint & customer support	GS	334
RIMS			USAG					Holley, Fred	6%	0.06	SW Maint & customer support	GS	334
RIMS			UASG					Kendle, Dave	10%	0.10	SW Maint & customer support	GS	334
SAACONS	Logistics	USAMRAA	USAG					Giallonardo, Frank	5%	0.05	SW Maint & customer support	GS	334
SAACONS	Logistics		USAG					Bowers, Beverly	1%	0.01	Customer support	GS	334
SAACONS Archiving	Logistics	USAG	USAG					Davis, Doug	1%	0.01	Customer support	GS	334
SAACONS Maint	Logistics	USAG	USAG					Davis, Doug	1%	0.01	Customer support	GS	334
SIDPERS	Resource	USAG	USAG					Dorsey, Glenn	2%	0.02	Customer support	GS	334
SPS/AIRS Interface	Logistics	Ft. Detrick/ Site IV/ WRAIR	USAG					Bowers, Beverly	7%	0.07	SW Maint & customer support	GS	334
SPS/AIRS Interface			USAG					Davis, Doug	10%	0.10	SW Maint & customer support	GS	334
STANFINS	Resource	USAG	USAG					Dorsey, Glenn	17%	0.17	Customer support	GS	334
STANFINS STO	Resource	MRMC	USAG					Dorsey, Glenn	2%	0.02	Customer support	GS	334
STARFIARS-MOD-R	Resource	USAMMA	USAG					Kendle, Dave	5%	0.05	Customer support	GS	334
STARFIARS-MOD-W	Resource	USAG	USAG					Kendle, Dave	5%	0.05	Customer support	GS	334

Project / Support	Business Area	Customer	Source of funding	Funding Received	Overhead Cost	Cost of Project	Delta	Resources by Last Name, First	Percentage of Time Spent on Project	Percentage	Remarks	GS / MIL / CONT	MOS / Series
SWISMIS	Logistics	MEDCOM	USAG					Giallonardo, Frank	5%	0.05	Customer support	GS	334
TDA	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
TDA			MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
Telephone Billing Sys		USAG	USAG					Dorsey, Glenn	10%	0.10	SW Maint & customer support	GS	334
Time Acctg Sys	Resource	USAMRAA	USAMRAA					Harris, Walter	5%	0.05	SW Maint & customer support	Cont	
TRANSPROC-IN	Resource	USAG	USAG					Holley, Fred	1%	0.01	Customer support	GS	334
TRANSPROC-OUT	Resource	USAG	USAG					Holley, Fred	1%	0.01	Customer support	GS	334
TRAVEL	Resource	MRMC	MRMC					Wildasin, Pam	1%	0.01	SW Maint & customer support	GS	334
TRAVEL			MRMC					Ott, Mike	1%	0.01	SW Maint & customer support	GS	334
UKS	Resource	USAG	USAG					Holley, Fred	1%	0.01	SW Maint & customer support	GS	334
USAG Security Sys	Resource	USAG	USAG					Holley, Fred	5%	0.05	SW Maint & customer support	GS	334
VAX Migration	Resource	MRMC	MRMC					Wildasin, Pam	15%	0.15	SW Maint & customer support	GS	334
VIS	Logistics	USAG	USAG					Giallonardo, Frank	2%	0.02	SW Maint & customer support	GS	334
WUIS	Resource	MRMC	MRMC					Wildasin, Pam	5%	0.05	SW Maint & customer support	GS	334
WUIS			MRMC					Ott, Mike	5%	0.05	SW Maint & customer support	GS	334
Y2K	Resource/ Logistics	USAG	USAG					Bowers, Beverly	5%	0.05	Customer support	GS	334
DFAS End of Year Support - Comp Time	Resource	Ft. Detrick	USAG					Bowers, Beverly	2%	0.02	Customer support	GS	334
DFAS End of Year Support - Comp Time			USAG					Davis, Doug	2%	0.02	Customer support	GS	334
DFAS End of Year Support - Overtime	Resource	Ft. Detrick	USAG					Dorsey, Glenn	3%	0.03	Customer support	GS	334
DFAS End of Year Support - Overtime			USAG					Kendle, Dave	4%	0.04	Customer support	GS	334
DFAS End of Year Support - Overtime		USAMRIID	USAMRIID					Wildasin, Pam	5%	0.05	Customer support	GS	334
USAMRIID Apps.													
Agreement Management System		USAMRIID	USAMRIID					Angleberger, Dale	3%	0.03	Maintenance	GS	334
Agreement Management System		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	
Animal Inventory System		USAMRIID	USAMRIID					Angleberger, Dale	4%	0.04	System Development	GS	334
AR Ordering System		USAMRIID	USAMRIID					McQuiston, Skip	10%	0.10	Maintenance	Cont	
AR Ordering System Phase II Upgrade		USAMRIID	USAMRIID					McQuiston, Skip	14%	0.14	System Development	Cont	
Budget Reimbursement System		USAMRIID	USAMRIID					McQuiston, Skip	8%	0.08	Maintenance	Cont	
Cell Culture Ordering System		USAMRIID	USAMRIID					McQuiston, Skip	5%	0.05	Maintenance and Verification of F	Cont	
Chargeback System		USAMRIID	USAMRIID					Angleberger, Dale	3%	0.03	Maintenance	GS	334
Clinlab System		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Integration with New 3rd party Lab	GS	334
Contract Management System		USAMRIID	USAMRIID					Angleberger, Dale	3%	0.03	Maintenance	GS	334
Contract Management System		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	
Cost Analysis for New Applications		USAMRIID	USAMRIID					Angleberger, Dale	15%	0.15	Analysis based on incoming CAP	GS	334
Drug Accountability System		USAMRIID	USAMRIID					McQuiston, Skip	7%	0.07	System Development	Cont	
Engineering ISR		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	System Upgrade for multi-platform	GS	334
Event Reimbursement System		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Integration with Screening Data fr	GS	334
FY96-17, Anthrax		USAMRIID	USAMRIID					Angleberger, Dale	2%	0.02	Maintenance, Data Mining, Secur	GS	334
FY97-0, MIP		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY97-02, Campylobactor		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY97-04, Malaria		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY97-07, Shigella		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY98-01, ETEC		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY98-08, Campylobactor		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY99-18, DNA		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	Maintenance, Data Mining, Secur	GS	334
FY99-29, Campylobactor		USAMRIID	USAMRIID					McQuiston, Skip	10%	0.10	System Development	Cont	
Hybridoma Storage Query System		USAMRIID	USAMRIID					Angleberger, Dale	4%	0.04	Maintenance and Verification of F	GS	334
Intranet Web Master		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Liason between USAMRIID and U	GS	334
Library Database Management System		USAMRIID	USAMRIID					Angleberger, Dale	3%	0.03	Maintenance	GS	334
Library Database Management System		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	
Manpower System		USAMRIID	USAMRIID					McQuiston, Skip	10%	0.10	Monthly Uploads and Scheduled I	Cont	
Network Applications System		USAMRIID	USAMRIID					Angleberger, Dale	4%	0.04	Maintenance and coordination wit	GS	334
Phone Listing System		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Maintenance and Upgrade to incl	GS	334
Phone Listing System		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	

Project / Support	Business Area	Customer	Source of funding	Funding Received	Overhead Cost	Cost of Project	Delta	Resources by Last Name, First	Percentage of Time Spent on Project	Percentage	Remarks	GS / MIL / CONT	MOS / Series
Property Book System		USAMRIID	USAMRIID					Angleberger, Dale	6%	0.06	Conversion to Web System	GS	334
Protocol Followup System			USAMRIID					McQuiston, Skip	5%	0.05	Maintenance	Cont	
Protocol Followup System Phase II Upgrade		USAMRIID	USAMRIID					McQuiston, Skip	15%	0.15	System Development	Cont	
Protocol Status Mailer			USAMRIID					Angleberger, Dale	3%	0.03	Weekly Maintenance and mailing	GS	334
Research Automation Committee		USAMRIID	USAMRIID					Angleberger, Dale	1%	0.01	USAMISSA representative	GS	334
Research Regulatory File Database		USAMRIID	USAMRIID					Angleberger, Dale	6%	0.06	System Development	GS	334
Shot & Bleed Management System		USAMRIID	USAMRIID					Angleberger, Dale	4%	0.04	Maintenance and upgrade to incl.	GS	334
Vet Med Training Database		USAMRIID	USAMRIID					Angleberger, Dale	2%	0.02	Maintenance	GS	334
Vet Med Training Database		USAMRIID	USAMRIID					McQuiston, Skip	3%	0.03	System Upgrade	Cont	
Windows Applications Support		USAMRIID	USAMRIID					Angleberger, Dale	5%	0.05	Institute resource for end-user de	GS	334
Windows Applications Support		USAMRIID	USAMRIID					McQuiston, Skip	4%	0.04	Institute resource for end-user de	Cont	
Other Non/Project													
Supervisor Duties		USAMISSA	USAG					Bowers, Beverly	20%			GS	334
Annual Supplies - Application Br.		USAG	USAG					(Apps. Employees)			~ $3,000.00		
FY99 Performance Awards (Yearly Appraisals)		USAMISSA	USAG					(Apps. Employees)			~ $6,000.00		
Unfunded Annual Requirements													
Annual PC Software Development Languages/Tools upgrades	USAG							(Apps. Employees)			~$5,000.00		
Annual Software Development Technical Conferences	USAG							(Apps. Employees)			~$15,000.00		
Software/Hardware Development Platforms Upgrades (3 year dep	USAG							(Apps. Employees)			annual cost ~ $12,500.00		
Apps. Printers Replacement (5 year depreciation value)	USAG							(Apps. Employees)			annual cost ~ $1,000.00		

Table E-15: Allocation of Labor, Equipment, Supplies, and Indirect Costs for Fort Detrick Systems

Direct Labor Resources	G/C	FY99 Salary	AIRS	ALB	ALORES	Total
Angleberger, Dale	G	42,384.00	0%			0%
Bowers, Beverly	G	76,123.00	84%			84%
Davis, Doug	G	66,363.00	82%		5%	87%
Dormer, Brian	C	127,827.45				0%
Dorsey, Glenn	G	69,081.00				0%
Giallonardo, Frank	G	56,076.00		20%		20%
Harris, Walter	C	68,806.04				0%
Holley, Fred	G	73,381.00				0%
Kendle, Dave	G	72,767.00	30%			30%
Leach, Jeff	G	49,538.80				0%
McQuiston, Skip	G	NA				0%
Nagle, Keith	C	119,996.66				0%
Ott, Mike	G	40,247.70				0%
Slane, Jennifer	C	109,322.04	53%			53%
Wildasin, Pam	G	105,856.00				0%
Total Direct Labor		1,077,769.70	198,131.76	11,215.20	3,318.15	212,665.11
Percentage of direct labor activity			18%	1%	0%	20%
Equipment and supplies		18,500.00	3,400.95	192.51	56.96	3,650.41
Indirect costs		77,489.31	14,245.25	806.35	238.57	15,290.16
Total support costs		1,173,759.01	215,777.96	12,214.06	3,613.67	231,605.69

Notes:
1. Costs for general application support equal sum of expenses for Fort Detrick systems and shared systems.
2. LMI identified these systems by specifying Fort Detrick as the customer and USAG as the funding source.

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13. ABSTRACT (Maximum 200 words)

The U.S. Army Garrison at Fort Detrick, MD, provides base support services to 36 tenant organizations. The garrison seeks to establish a fair and accurate basis to charge tenants for the services it provides. The garrison documents its services through inter-service support agreements. Before establishing its agreements for the upcoming fiscal year, the garrison was interested in reexamining the basis for its charges. It also was interested in examining the relationship between service delivery and costs, so that it can optimize resource allocation decisions in the future. This report conveys the results of a study of six service areas: Refuse Removal, Continuing Education, Custodial Services, Facilities Engineering, Communications, and Information Technology. For each service area, the study identifies the services being provided to tenants, quantifies their costs, determines the level of service delivery, and recommends a commensurate rate structure. By understanding the true level of resources required to provide each service, the garrison can make informed decisions on service delivery and resource allocation. The garrison can use the rates developed as a basis for its reimbursable activity. It also can use the rate information to identify opportunities for operational improvements within service areas.

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